

# BULLETIN

OF THE

# DEPARTMENT OF LABOR.

---

No. 18—SEPTEMBER, 1898.

ISSUED EVERY OTHER MONTH.

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EDITED BY  
CARROLL D. WRIGHT,  
COMMISSIONER.

OREN W. WEAVER,  
CHIEF CLERK.

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### WAGES IN THE UNITED STATES AND EUROPE, 1870 TO 1898.

In order to secure original wage data for certain skilled trades for leading cities in this country and some of the industrial centers in Europe, the Department some time ago invited the cooperation of the head of the labor department in England and the chiefs of the bureaus of labor of France and Belgium. These gentlemen very kindly consented to supervise the collection of the facts required. The results are presented herewith. Our most cordial acknowledgments are due to H. Llewellyn Smith, esq., commissioner for labor of England; M. C. Moron, chief of the bureau of labor of France, and M. C. Morisseaux, chief of the bureau of labor of Belgium. The care exercised by these gentlemen has resulted in furnishing the Department with some very accurate information. The tables which follow are the results of their efforts so far as Great Britain, France, and Belgium are concerned, and of recent original inquiries by the agents and experts of this Department so far as the cities in the United States are concerned.

This article does not in any way deal with prices. Prices from a period, in most cases, earlier than 1870 up to October, 1892, are shown, by years, in the report made in 1893 by the Senate finance committee (Wholesale Prices, Wages, and Transportation). Probably since 1892 the tendency has been slightly downward. It is not therefore necessary to discuss prices in connection with the wage rates given. If prices on the whole are stationary and wages have increased, every such increase means greater purchasing power of a day's work. If at the same time there is a decrease in prices the increase in the purchasing power of a day's work is so much the greater.

These statements should be considered when the tables presented are being studied.



It will be noticed that the occupations included in the tables are such as are susceptible of accurate definition, and thus may readily be found in all the countries mentioned. The difficulty of determining the equivalent in foreign countries of the various occupations known to us has necessarily limited the number covered. In all, 25 occupations were selected, and in most instances quotations for each were secured from at least two establishments in each city. The data are from firms that have existed and have done business continuously since 1870, and the facts in most instances, in accordance with the rule of the Department, have been taken directly from the pay rolls. Thus continuous and accurate returns for the period covered have been made possible, greatly enhancing the value of the tables, which, in the brief form here given, are the result of a large amount of data showing for each occupation and each year the number of employees working on full time and receiving each specified rate of pay. This information in its detail is exceedingly interesting, but almost 400 pages of the Bulletin would have been required for its publication, and for this reason only the briefer summaries of this mass of data are shown in the tables which follow.

The cities of Baltimore, Boston, Chicago, Cincinnati, New Orleans, New York, Philadelphia, Pittsburg and Allegheny, Richmond, St. Louis, St. Paul, and San Francisco have been covered in the United States, and the period comprises the years from 1870 to 1898, while abroad wages were secured from London and Manchester in England, Glasgow in Scotland, Paris in France, and Liege in Belgium, the years covered being those from 1870 to 1896. Owing to the difficulties and delay in securing foreign wages, no data for 1897 and 1898 were obtained.

Table I gives the actual average daily wages in the 25 selected occupations from 1870 to 1898, inclusive, in each of the 12 cities in the United States just mentioned, as shown by the summing up of the many quotations of individual rates paid, which were secured in most instances directly from the pay rolls of the various establishments. A column has been added, showing for each occupation the average daily wages for the 12 selected cities combined. These averages do not represent the average wages paid in the specified occupations for the entire country, but are simply averages of the items given. Being for the larger industrial centers only, the average is probably somewhat higher than that for the entire country. Agreement as to what might fairly be called an average for the entire country would be extremely difficult, and any method of arriving at such might be open to criticism. A request for the average daily wages of blacksmiths in the United States in 1882, for example (and such requests are frequent), could hardly be given a statistical reply, or one not open to misunderstanding, but a reply that the average for 12 of the leading industrial centers was \$2.64½ would be a reply at once definite and susceptible of no misunderstanding. To meet such needs these averages have been given.



In studying Table I it should be borne in mind that wages for the United States, as originally taken from the pay rolls by the agents of the Department, were (except for San Francisco) in currency, and that during the period from 1870 to 1878, inclusive, this money was considerably depreciated. In order that a strictly accurate comparison, therefore, may be made between these earlier years and the years from 1879 forward due allowance has been made for such depreciation, and the figures given for these years are those secured by a reduction of the original currency wages to their equivalent in gold. In converting wages in currency into wages in gold the value of \$100 gold in currency for January of each year from 1870 to 1877 and the average value for the entire year 1878, as given in the American Almanac for 1879, have been used, as follows: 1870, \$121.3; 1871, \$110.7; 1872, \$109.1; 1873, \$112.7; 1874, \$111.4; 1875, \$112.5; 1876, \$112.8; 1877, \$106.2, and 1878, \$101.4.

Table II contains the result of the investigation into the wages paid in foreign countries, showing the actual average daily wages paid in certain occupations from 1870 to 1896, inclusive, in London, Manchester, Glasgow, Paris, and Liege, as deduced from the quotations of individual rates from these cities. These wages are, of course, given in gold, and occupations may safely be compared with the same occupations as shown for the United States in Table I. As the reports of wages in Liege for boiler makers, boiler makers' helpers, carpenters, hod carriers, machinists, masons (stone), plumbers, and stonecutters do not cover the entire period, such reports could not be used in computing the general average of wages for the city shown for each year in the table on page 668. For the same reason the report of wages for blacksmiths in London could not be used in computing the general average for Great Britain.

It is not claimed that the absolute increase or decrease in wage rates for all industries can be assumed as the result of these inquiries. Statements must be taken as relating to the particular trades specified. Nevertheless, the conditions in these trades or callings are quite indicative of the general course of wages in others.

The short summary following shows the results, in compact form, for the four countries covered, Great Britain, France, Belgium, and the United States. The wages for each occupation and city, as shown in Tables I and II, have been used as the basis of this summary, the figures here being simply the averages of the details there shown. The wages shown for the United States, as well as those for Great Britain, France, and Belgium, are expressed in gold. It should be borne in mind that this summary can be safely used only in tracing the course of wages from year to year, and that comparisons should not be instituted between the wages shown here for the different countries represented. Such comparisons would not be safe, owing to the lack of completeness in the foreign data, each average for the United States representing 255 wage quotations, as given in Table I, while each aver-



age for Great Britain represents 27 quotations (10 occupations in London, 11 in Manchester, and 6 in Glasgow), each average for Paris, France, represents 21 quotations, and each average for Liege, Belgium, represents 11 quotations. For comparisons between countries in the wages for different occupations Tables I and II should be used.

AVERAGE DAILY WAGES IN GOLD IN CERTAIN CITIES OF THE UNITED STATES, GREAT BRITAIN, FRANCE, AND BELGIUM.

[The figures in this table are simply averages of the details shown in Tables I and II, wherever such details are for the entire period. These averages, therefore, represent in each year for the United States 255 wage quotations; for Great Britain, 27 quotations; for Paris, France, 21 quotations, and for Liege, Belgium, 11 quotations. As the averages for each country therefore represent a different number of occupations, they should not be compared with each other. Such comparison can more properly be made between individual occupations only. This table can best be used only to show the course of wages from year to year.]

Year.	Great Britain.	Paris, France.	Liege, Belgium.	United States.
1870.....	\$1.30	\$1.06	\$0.59½	\$2.20½
1871.....	1.30¼	1.06½	.60¼	2.39¼
1872.....	1.33	1.07½	.61	2.45
1873.....	1.35	1.08½	.64	2.35½
1874.....	1.36¾	1.08½	.65¼	2.30¼
1875.....	1.38	1.11¼	.63½	2.24¼
1876.....	1.40½	1.12	.63	2.18
1877.....	1.41½	1.15¼	.62½	2.24½
1878.....	1.40¼	1.16¾	.60½	2.30¾
1879.....	1.37¼	1.16¾	.61¼	2.32
1880.....	1.37¼	1.21¼	.62½	2.34
1881.....	1.37¾	1.22¼	.63¾	2.40¾
1882.....	1.39¼	1.24½	.65½	2.44¾
1883.....	1.40¼	1.24¾	.65	2.47
1884.....	1.40¼	1.24¾	.64¾	2.49
1885.....	1.39¾	1.24¾	.63¼	2.47¼
1886.....	1.39	1.25¾	.63	2.47¼
1887.....	1.39¼	1.25¾	.62¼	2.49¼
1888.....	1.40	1.25	.63¼	2.50¾
1889.....	1.40¾	1.26¾	.62¾	2.51½
1890.....	1.41¾	1.31¼	.63¼	2.52¾
1891.....	1.43¾	1.31½	.65	2.54½
1892.....	1.43¾	1.31½	.64	2.56
1893.....	1.44½	1.32	.64¼	2.54¼
1894.....	1.44¾	1.32½	.65½	2.49¼
1895.....	1.45	1.32½	.65¼	2.47¼
1896.....	1.49	1.33	.66¼	2.45¾
1897.....				2.44½
1898.....				2.43¼

So far as Great Britain is concerned, it is seen that a gradual increase in wages occurred during the years from 1870 to 1877, the wages in the latter year having reached \$1.41½ against \$1.30 in the former. A slight falling off occurred in 1878, and a still greater drop in 1879 and 1880, \$1.37¼ being the wages in these years. From this figure the wages increased to \$1.40¼ in 1883, and this rate was maintained in 1884. The years 1885 and 1886 show a slight decrease, after which there is found a steady increase to 1896, when the wages reached \$1.49. With the exception of the year 1888, during which there was a slight decline from the wages of the previous year, the wages for France show a gradual increase from \$1.06 in 1870 to \$1.33 in 1896. The wages in Belgium increased from \$0.59½ in 1870 to \$0.65¼ in 1874. In 1875, 1876, 1877, and 1878 they fell slightly, reaching \$0.60½ in 1878. After this there was a gradual rise, which continued through 1879, 1880, 1881, and 1882. Five years of decreasing wages followed, \$0.62¼ being

reached in 1887. Several years of rising and falling wages ensued, the figure rising finally to \$0.66 $\frac{1}{4}$  in 1896.

In the United States there was a rise from \$2.20 $\frac{1}{2}$ , the wages of 1870, to \$2.39 $\frac{1}{4}$  in 1871 and to \$2.45 in 1872. During the four succeeding years a gradual decline occurred, reaching its lowest point in 1876 in a wage of \$2.18. The next year shows, however, a rise to \$2.24 $\frac{1}{2}$ , and 1878 a further rise to \$2.30 $\frac{3}{4}$ , and a gradual rise continued up to 1884, when the figure was \$2.49. A slight decline occurred in 1885, and continued through 1886, but in 1887 the wages of 1884 had been more than regained, and from this year up to 1892 there was a steady rise, the highest point for the period, \$2.56, being reached in 1892. From this time to 1898 there has been a slight but steady decline, the wages for 1898 being \$2.43 $\frac{1}{4}$ , or \$0.12 $\frac{3}{4}$  below the high mark of 1892, but 22 $\frac{3}{4}$  cents above the wages for 1870.

In order that the rise and fall in wages from year to year may be more readily measured, the increase or decrease of average actual wages given in the preceding table has been expressed in percentages, 1870 being taken as the basis, and the percentage of increase or decrease for each year thereafter (from 1871 to 1898) shown in the following table:

PERCENTAGE OF INCREASE OF AVERAGE WAGES IN EACH YEAR FROM 1871 TO 1898, AS COMPARED WITH AVERAGE WAGES IN 1870, IN GOLD, FOR CERTAIN CITIES OF THE UNITED STATES, GREAT BRITAIN, FRANCE, AND BELGIUM.

Year.	Great Britain.	Paris, France.	Liege, Belgium.	United States.
1870.....				
1871.....	0.2	0.5	1.3	8.5
1872.....	2.3	1.4	2.5	11.1
1873.....	3.8	2.1	7.6	6.8
1874.....	5.2	2.4	9.7	4.4
1875.....	6.2	5.0	6.7	1.7
1876.....	8.1	5.7	5.9	<sup>a</sup> 1.1
1877.....	8.8	8.7	5.0	1.8
1878.....	7.9	10.1	1.7	4.6
1879.....	5.6	10.1	2.9	5.2
1880.....	5.6	14.4	4.6	6.1
1881.....	6.0	15.3	7.1	9.2
1882.....	7.1	17.5	10.1	11.0
1883.....	7.9	17.7	9.2	12.0
1884.....	7.9	17.7	8.8	12.9
1885.....	7.5	17.7	6.3	12.1
1886.....	6.9	18.6	5.9	12.1
1887.....	7.1	18.6	4.6	13.0
1888.....	7.7	17.9	6.3	13.7
1889.....	8.3	19.6	5.5	14.1
1890.....	9.0	23.8	6.3	14.6
1891.....	10.6	24.1	9.2	15.4
1892.....	10.6	24.1	7.6	16.1
1893.....	11.2	24.5	8.0	15.3
1894.....	11.3	25.0	10.1	13.0
1895.....	11.5	25.0	9.7	12.1
1896.....	14.6	25.5	11.3	11.5
1897.....				10.9
1898.....				10.3

<sup>a</sup> Decrease.



TABLE I.—AVERAGE DAILY WAGES IN GOLD IN CERTAIN CITIES OF THE UNITED STATES, 1870 TO 1898.

[The wages for the years 1870 to 1873, inclusive, except in the case of San Francisco, were reported in currency. In converting wages in currency into wages in gold the value of \$100 gold in currency for January of each year from 1870 to 1877 and the average value for the entire year 1878, as given in

BLACKSMITHS.

Year.	Balti- more.	Bos- ton.	Chi- cago.	Cin- cinnati.	New Or- leans.	New York.	Phila- del- phia.	Pitts- burg and Alle- gheny.	Rich- mond.	St. Louis.	St. Paul.	San Fran- cisco.	Aver- age.
1870..	\$1.96 <sup>1</sup> / <sub>4</sub>	\$3.00 <sup>1</sup> / <sub>4</sub>	\$2.51 <sup>1</sup> / <sub>2</sub>	\$1.99	\$3.09 <sup>1</sup> / <sub>4</sub>	\$2.24 <sup>3</sup> / <sub>4</sub>	\$1.86	\$1.93 <sup>1</sup> / <sub>4</sub>	\$1.99 <sup>1</sup> / <sub>4</sub>	\$2.39	\$2.35	\$3.80 <sup>3</sup> / <sub>4</sub>	\$2.43
1871..	2.15 <sup>1</sup> / <sub>2</sub>	3.26	2.71	2.18 <sup>1</sup> / <sub>2</sub>	3.38 <sup>3</sup> / <sub>4</sub>	2.59 <sup>3</sup> / <sub>4</sub>	2.34 <sup>3</sup> / <sub>4</sub>	2.25 <sup>3</sup> / <sub>4</sub>	2.18 <sup>1</sup> / <sub>2</sub>	2.69	2.57 <sup>1</sup> / <sub>2</sub>	3.49 <sup>3</sup> / <sub>4</sub>	2.65 <sup>1</sup> / <sub>2</sub>
1872..	2.18 <sup>1</sup> / <sub>2</sub>	3.33 <sup>3</sup> / <sub>4</sub>	2.89	2.16 <sup>1</sup> / <sub>2</sub>	3.43 <sup>3</sup> / <sub>4</sub>	2.61 <sup>3</sup> / <sub>4</sub>	2.45 <sup>1</sup> / <sub>2</sub>	2.17 <sup>1</sup> / <sub>2</sub>	2.21 <sup>1</sup> / <sub>2</sub>	2.74	2.61 <sup>1</sup> / <sub>4</sub>	3.55 <sup>3</sup> / <sub>4</sub>	2.70
1873..	1.96 <sup>3</sup> / <sub>4</sub>	3.18	2.76 <sup>1</sup> / <sub>4</sub>	2.19 <sup>3</sup> / <sub>4</sub>	3.32 <sup>3</sup> / <sub>4</sub>	2.53	2.43 <sup>1</sup> / <sub>2</sub>	2.00 <sup>3</sup> / <sub>4</sub>	2.14 <sup>1</sup> / <sub>2</sub>	2.61	2.53	3.61	2.60 <sup>3</sup> / <sub>4</sub>
1874..	1.85 <sup>1</sup> / <sub>2</sub>	3.14 <sup>1</sup> / <sub>4</sub>	2.75 <sup>1</sup> / <sub>4</sub>	2.18 <sup>3</sup> / <sub>4</sub>	3.14 <sup>3</sup> / <sub>4</sub>	2.40 <sup>1</sup> / <sub>4</sub>	2.52 <sup>1</sup> / <sub>4</sub>	2.24 <sup>3</sup> / <sub>4</sub>	2.02	2.64	2.58	3.58 <sup>3</sup> / <sub>4</sub>	2.59
1875..	1.85 <sup>1</sup> / <sub>2</sub>	2.68 <sup>1</sup> / <sub>4</sub>	2.57	2.41 <sup>3</sup> / <sub>4</sub>	2.66 <sup>3</sup> / <sub>4</sub>	2.37 <sup>3</sup> / <sub>4</sub>	2.15	2.15	2.00	2.66 <sup>1</sup> / <sub>4</sub>	2.55 <sup>1</sup> / <sub>2</sub>	3.55	2.47
1876..	1.99 <sup>1</sup> / <sub>4</sub>	2.76 <sup>1</sup> / <sub>2</sub>	2.51 <sup>1</sup> / <sub>4</sub>	2.17 <sup>1</sup> / <sub>4</sub>	2.66	2.39 <sup>1</sup> / <sub>4</sub>	2.02 <sup>1</sup> / <sub>2</sub>	1.99 <sup>1</sup> / <sub>4</sub>	1.99 <sup>1</sup> / <sub>2</sub>	2.61 <sup>1</sup> / <sub>4</sub>	2.53 <sup>1</sup> / <sub>4</sub>	3.56 <sup>3</sup> / <sub>4</sub>	2.43 <sup>3</sup> / <sub>4</sub>
1877..	2.11 <sup>3</sup> / <sub>4</sub>	2.60 <sup>3</sup> / <sub>4</sub>	2.56 <sup>1</sup> / <sub>4</sub>	2.19 <sup>3</sup> / <sub>4</sub>	2.82 <sup>1</sup> / <sub>2</sub>	2.54 <sup>1</sup> / <sub>4</sub>	1.89 <sup>1</sup> / <sub>2</sub>	2.38 <sup>1</sup> / <sub>4</sub>	2.11 <sup>3</sup> / <sub>4</sub>	2.77 <sup>1</sup> / <sub>4</sub>	2.69	3.45 <sup>1</sup> / <sub>4</sub>	2.51 <sup>1</sup> / <sub>4</sub>
1878..	2.21 <sup>3</sup> / <sub>4</sub>	2.73 <sup>3</sup> / <sub>4</sub>	2.60	2.33 <sup>3</sup> / <sub>4</sub>	2.95 <sup>3</sup> / <sub>4</sub>	2.59	1.94	2.39 <sup>3</sup> / <sub>4</sub>	2.22	2.95	2.81 <sup>3</sup> / <sub>4</sub>	3.83 <sup>3</sup> / <sub>4</sub>	2.59 <sup>1</sup> / <sub>4</sub>
1879..	2.24 <sup>3</sup> / <sub>4</sub>	2.77	2.69 <sup>3</sup> / <sub>4</sub>	2.34 <sup>3</sup> / <sub>4</sub>	3.00	2.60	1.89 <sup>1</sup> / <sub>2</sub>	2.32 <sup>1</sup> / <sub>4</sub>	2.25	2.63 <sup>3</sup> / <sub>4</sub>	2.87 <sup>1</sup> / <sub>2</sub>	3.46	2.59 <sup>1</sup> / <sub>4</sub>
1880..	2.20 <sup>1</sup> / <sub>2</sub>	2.94 <sup>1</sup> / <sub>4</sub>	2.67 <sup>1</sup> / <sub>4</sub>	2.31 <sup>3</sup> / <sub>4</sub>	3.00	2.67 <sup>1</sup> / <sub>2</sub>	2.07	2.22 <sup>1</sup> / <sub>2</sub>	2.25	2.63 <sup>1</sup> / <sub>2</sub>	2.59 <sup>1</sup> / <sub>2</sub>	3.57	2.59 <sup>3</sup> / <sub>4</sub>
1881..	2.20 <sup>1</sup> / <sub>2</sub>	3.05	2.90 <sup>1</sup> / <sub>4</sub>	2.40 <sup>1</sup> / <sub>4</sub>	3.00	2.67 <sup>1</sup> / <sub>2</sub>	2.16 <sup>3</sup> / <sub>4</sub>	2.23 <sup>1</sup> / <sub>4</sub>	2.25	2.64 <sup>1</sup> / <sub>2</sub>	2.60 <sup>3</sup> / <sub>4</sub>	3.56 <sup>1</sup> / <sub>2</sub>	2.64 <sup>1</sup> / <sub>2</sub>
1882..	2.27 <sup>1</sup> / <sub>4</sub>	2.94 <sup>1</sup> / <sub>4</sub>	2.88	2.44 <sup>3</sup> / <sub>4</sub>	3.00	2.62 <sup>1</sup> / <sub>2</sub>	2.26 <sup>3</sup> / <sub>4</sub>	2.33 <sup>1</sup> / <sub>4</sub>	2.25	2.59	2.59 <sup>1</sup> / <sub>2</sub>	3.52 <sup>3</sup> / <sub>4</sub>	2.64 <sup>1</sup> / <sub>2</sub>
1883..	2.26 <sup>1</sup> / <sub>4</sub>	2.82 <sup>1</sup> / <sub>2</sub>	2.83 <sup>1</sup> / <sub>4</sub>	2.34 <sup>3</sup> / <sub>4</sub>	3.00	2.82 <sup>1</sup> / <sub>2</sub>	2.29 <sup>1</sup> / <sub>4</sub>	2.34	2.25	2.63 <sup>1</sup> / <sub>4</sub>	2.59 <sup>1</sup> / <sub>2</sub>	3.52 <sup>1</sup> / <sub>4</sub>	2.64 <sup>1</sup> / <sub>2</sub>
1884..	2.28 <sup>1</sup> / <sub>4</sub>	2.87 <sup>1</sup> / <sub>2</sub>	2.80 <sup>1</sup> / <sub>4</sub>	2.42 <sup>3</sup> / <sub>4</sub>	3.00	2.92 <sup>1</sup> / <sub>2</sub>	2.31 <sup>3</sup> / <sub>4</sub>	2.46 <sup>3</sup> / <sub>4</sub>	2.25	2.63 <sup>1</sup> / <sub>4</sub>	2.44 <sup>1</sup> / <sub>2</sub>	3.53 <sup>1</sup> / <sub>4</sub>	2.66 <sup>1</sup> / <sub>4</sub>
1885..	2.24 <sup>1</sup> / <sub>4</sub>	3.01 <sup>1</sup> / <sub>2</sub>	2.88	2.26 <sup>3</sup> / <sub>4</sub>	3.00	2.62 <sup>1</sup> / <sub>2</sub>	2.32 <sup>1</sup> / <sub>4</sub>	2.28 <sup>3</sup> / <sub>4</sub>	2.25	2.63 <sup>3</sup> / <sub>4</sub>	2.44 <sup>1</sup> / <sub>2</sub>	3.48	2.62
1886..	2.26 <sup>3</sup> / <sub>4</sub>	3.02 <sup>1</sup> / <sub>2</sub>	2.90 <sup>1</sup> / <sub>2</sub>	2.24 <sup>3</sup> / <sub>4</sub>	3.00	2.75	2.32	2.42 <sup>3</sup> / <sub>4</sub>	2.25	2.63 <sup>3</sup> / <sub>4</sub>	2.44	3.49 <sup>1</sup> / <sub>4</sub>	2.64 <sup>3</sup> / <sub>4</sub>
1887..	2.23 <sup>3</sup> / <sub>4</sub>	2.87 <sup>1</sup> / <sub>2</sub>	2.91	2.25 <sup>1</sup> / <sub>4</sub>	3.00	3.20	2.26 <sup>1</sup> / <sub>2</sub>	2.38 <sup>1</sup> / <sub>2</sub>	2.25	2.63	2.44	3.54 <sup>1</sup> / <sub>4</sub>	2.66 <sup>1</sup> / <sub>2</sub>
1888..	2.18 <sup>1</sup> / <sub>2</sub>	2.87 <sup>1</sup> / <sub>2</sub>	2.87 <sup>3</sup> / <sub>4</sub>	2.28 <sup>3</sup> / <sub>4</sub>	3.00	3.17 <sup>1</sup> / <sub>2</sub>	2.27 <sup>1</sup> / <sub>2</sub>	2.15 <sup>1</sup> / <sub>2</sub>	2.25	2.63	2.44 <sup>1</sup> / <sub>4</sub>	3.65 <sup>1</sup> / <sub>4</sub>	2.65
1889..	2.01	2.91 <sup>1</sup> / <sub>2</sub>	2.84 <sup>1</sup> / <sub>2</sub>	2.30 <sup>3</sup> / <sub>4</sub>	3.00	2.80	2.32	2.39 <sup>3</sup> / <sub>4</sub>	2.25	2.63	2.75	3.53	2.64 <sup>1</sup> / <sub>2</sub>
1890..	2.12 <sup>1</sup> / <sub>4</sub>	2.80 <sup>1</sup> / <sub>4</sub>	2.86 <sup>3</sup> / <sub>4</sub>	2.32 <sup>3</sup> / <sub>4</sub>	3.00	2.82 <sup>1</sup> / <sub>2</sub>	2.28 <sup>1</sup> / <sub>2</sub>	2.37 <sup>1</sup> / <sub>2</sub>	2.25	2.63	2.75	3.35 <sup>1</sup> / <sub>2</sub>	2.63 <sup>1</sup> / <sub>4</sub>
1891..	1.97 <sup>3</sup> / <sub>4</sub>	2.79 <sup>3</sup> / <sub>4</sub>	2.83	2.34 <sup>1</sup> / <sub>4</sub>	2.83 <sup>1</sup> / <sub>4</sub>	2.52 <sup>1</sup> / <sub>2</sub>	2.29	2.41	2.25	2.63 <sup>1</sup> / <sub>2</sub>	2.75	3.32 <sup>3</sup> / <sub>4</sub>	2.58
1892..	1.97 <sup>1</sup> / <sub>4</sub>	2.79 <sup>3</sup> / <sub>4</sub>	2.84	2.32 <sup>1</sup> / <sub>4</sub>	2.83 <sup>1</sup> / <sub>4</sub>	2.92 <sup>1</sup> / <sub>2</sub>	2.15	2.41 <sup>3</sup> / <sub>4</sub>	2.25	2.64 <sup>3</sup> / <sub>4</sub>	2.75	3.22 <sup>3</sup> / <sub>4</sub>	2.59 <sup>1</sup> / <sub>2</sub>
1893..	2.06	2.78 <sup>1</sup> / <sub>2</sub>	2.92 <sup>1</sup> / <sub>2</sub>	2.34 <sup>1</sup> / <sub>2</sub>	2.83 <sup>1</sup> / <sub>4</sub>	2.92 <sup>1</sup> / <sub>2</sub>	2.23	2.39 <sup>1</sup> / <sub>4</sub>	2.25	2.62 <sup>1</sup> / <sub>2</sub>	2.50	3.22 <sup>3</sup> / <sub>4</sub>	2.59 <sup>1</sup> / <sub>4</sub>
1894..	1.97 <sup>1</sup> / <sub>4</sub>	2.75	2.73 <sup>1</sup> / <sub>4</sub>	2.01 <sup>3</sup> / <sub>4</sub>	2.83 <sup>1</sup> / <sub>4</sub>	2.92 <sup>1</sup> / <sub>2</sub>	1.83 <sup>1</sup> / <sub>4</sub>	2.29 <sup>1</sup> / <sub>4</sub>	2.25	2.62 <sup>1</sup> / <sub>2</sub>	2.50	3.20	2.49 <sup>1</sup> / <sub>2</sub>
1895..	1.95 <sup>1</sup> / <sub>4</sub>	2.75 <sup>3</sup> / <sub>4</sub>	2.80	2.11	2.83 <sup>1</sup> / <sub>4</sub>	2.50	1.88 <sup>1</sup> / <sub>4</sub>	2.21 <sup>3</sup> / <sub>4</sub>	2.25	2.62 <sup>1</sup> / <sub>2</sub>	2.50	3.20	2.47
1896..	2.03 <sup>1</sup> / <sub>4</sub>	2.75	2.80 <sup>1</sup> / <sub>4</sub>	2.15 <sup>1</sup> / <sub>2</sub>	2.83 <sup>1</sup> / <sub>4</sub>	2.45	1.78 <sup>3</sup> / <sub>4</sub>	2.35 <sup>3</sup> / <sub>4</sub>	2.25	2.26 <sup>1</sup> / <sub>2</sub>	2.50	3.16 <sup>1</sup> / <sub>4</sub>	2.44 <sup>1</sup> / <sub>2</sub>
1897..	2.05 <sup>1</sup> / <sub>2</sub>	2.76	2.80 <sup>1</sup> / <sub>2</sub>	2.16	2.83 <sup>1</sup> / <sub>4</sub>	2.20	2.05 <sup>1</sup> / <sub>4</sub>	2.04	2.25	2.13 <sup>1</sup> / <sub>4</sub>	2.50	3.13 <sup>1</sup> / <sub>2</sub>	2.41
1898..	2.00	2.76	2.81 <sup>1</sup> / <sub>2</sub>	2.17 <sup>1</sup> / <sub>4</sub>	2.83 <sup>1</sup> / <sub>4</sub>	2.55	2.03 <sup>3</sup> / <sub>4</sub>	2.05 <sup>1</sup> / <sub>4</sub>	2.25	2.13 <sup>3</sup> / <sub>4</sub>	2.50	3.12	2.43 <sup>1</sup> / <sub>2</sub>

BLACKSMITHS' HELPERS.

870..	1.21 <sup>1</sup> / <sub>2</sub>	1.56	1.65	1.28 <sup>3</sup> / <sub>4</sub>	1.65	1.48 <sup>1</sup> / <sub>2</sub>	1.19 <sup>1</sup> / <sub>4</sub>	1.23	0.82 <sup>1</sup> / <sub>2</sub>	1.07 <sup>1</sup> / <sub>4</sub>	1.32	2.34 <sup>1</sup> / <sub>4</sub>	1.40 <sup>1</sup> / <sub>4</sub>
871..	1.33	1.71	1.69 <sup>1</sup> / <sub>2</sub>	1.41	1.80 <sup>3</sup> / <sub>4</sub>	1.62 <sup>1</sup> / <sub>2</sub>	1.39	1.39 <sup>3</sup> / <sub>4</sub>	.90 <sup>1</sup> / <sub>4</sub>	1.22	1.44 <sup>1</sup> / <sub>2</sub>	2.22 <sup>3</sup> / <sub>4</sub>	1.51 <sup>1</sup> / <sub>4</sub>
872..	1.32 <sup>3</sup> / <sub>4</sub>	1.75	1.83 <sup>1</sup> / <sub>4</sub>	1.44 <sup>3</sup> / <sub>4</sub>	1.83 <sup>1</sup> / <sub>4</sub>	1.62 <sup>3</sup> / <sub>4</sub>	1.47 <sup>1</sup> / <sub>2</sub>	1.41	.91 <sup>3</sup> / <sub>4</sub>	1.28 <sup>1</sup> / <sub>4</sub>	1.46 <sup>3</sup> / <sub>4</sub>	2.21 <sup>1</sup> / <sub>2</sub>	1.55
873..	1.20 <sup>3</sup> / <sub>4</sub>	1.70 <sup>1</sup> / <sub>4</sub>	1.74 <sup>1</sup> / <sub>4</sub>	1.39 <sup>1</sup> / <sub>4</sub>	1.77 <sup>1</sup> / <sub>2</sub>	1.59 <sup>3</sup> / <sub>4</sub>	1.52	1.46 <sup>1</sup> / <sub>4</sub>	.88 <sup>3</sup> / <sub>4</sub>	1.19 <sup>3</sup> / <sub>4</sub>	1.42	2.24 <sup>1</sup> / <sub>2</sub>	1.51 <sup>1</sup> / <sub>4</sub>
874..	1.22	1.74 <sup>1</sup> / <sub>4</sub>	1.63 <sup>3</sup> / <sub>4</sub>	1.38	1.79 <sup>1</sup> / <sub>2</sub>	1.59 <sup>1</sup> / <sub>4</sub>	1.45 <sup>3</sup> / <sub>4</sub>	1.39 <sup>1</sup> / <sub>4</sub>	.85 <sup>1</sup> / <sub>4</sub>	1.25 <sup>1</sup> / <sub>4</sub>	1.45 <sup>3</sup> / <sub>4</sub>	2.24	1.50 <sup>1</sup> / <sub>4</sub>
875..	1.21	1.70 <sup>1</sup> / <sub>2</sub>	1.55 <sup>1</sup> / <sub>2</sub>	1.38 <sup>1</sup> / <sub>2</sub>	1.77 <sup>3</sup> / <sub>4</sub>	1.57 <sup>3</sup> / <sub>4</sub>	1.29	1.20 <sup>1</sup> / <sub>2</sub>	.84 <sup>1</sup> / <sub>2</sub>	1.24 <sup>1</sup> / <sub>2</sub>	1.44 <sup>1</sup> / <sub>2</sub>	2.24 <sup>3</sup> / <sub>4</sub>	1.45 <sup>3</sup> / <sub>4</sub>
876..	1.20 <sup>1</sup> / <sub>2</sub>	1.44 <sup>1</sup> / <sub>2</sub>	1.47 <sup>1</sup> / <sub>2</sub>	1.35 <sup>3</sup> / <sub>4</sub>	1.77 <sup>1</sup> / <sub>4</sub>	1.57 <sup>1</sup> / <sub>4</sub>	1.23 <sup>3</sup> / <sub>4</sub>	1.19 <sup>1</sup> / <sub>4</sub>	.84 <sup>1</sup> / <sub>4</sub>	1.19 <sup>1</sup> / <sub>4</sub>	1.42 <sup>1</sup> / <sub>2</sub>	2.24	1.41 <sup>1</sup> / <sub>4</sub>
877..	1.28 <sup>3</sup> / <sub>4</sub>	1.52 <sup>3</sup> / <sub>4</sub>	1.57 <sup>1</sup> / <sub>2</sub>	1.41	1.88 <sup>1</sup> / <sub>4</sub>	1.67 <sup>1</sup> / <sub>4</sub>	1.12	1.32 <sup>3</sup> / <sub>4</sub>	.89 <sup>3</sup> / <sub>4</sub>	1.31 <sup>3</sup> / <sub>4</sub>	1.51 <sup>1</sup> / <sub>2</sub>	2.23 <sup>1</sup> / <sub>4</sub>	1.48
878..	1.39 <sup>3</sup> / <sub>4</sub>	1.57 <sup>3</sup> / <sub>4</sub>	1.68 <sup>3</sup> / <sub>4</sub>	1.48 <sup>1</sup> / <sub>4</sub>	1.97 <sup>1</sup> / <sub>4</sub>	1.60 <sup>1</sup> / <sub>4</sub>	1.14 <sup>1</sup> / <sub>2</sub>	1.39	.93 <sup>3</sup> / <sub>4</sub>	1.38	1.58 <sup>1</sup> / <sub>2</sub>	2.10 <sup>1</sup> / <sub>2</sub>	1.52 <sup>1</sup> / <sub>4</sub>
879..	1.41 <sup>3</sup> / <sub>4</sub>	1.62	1.63 <sup>1</sup> / <sub>4</sub>	1.46 <sup>1</sup> / <sub>4</sub>	2.00	1.57 <sup>1</sup> / <sub>4</sub>	1.16 <sup>3</sup> / <sub>4</sub>	1.45	.95	1.35	1.62 <sup>1</sup> / <sub>2</sub>	2.10 <sup>1</sup> / <sub>2</sub>	1.53
880..	1.41 <sup>3</sup> / <sub>4</sub>	1.57 <sup>3</sup> / <sub>4</sub>	1.63 <sup>1</sup> / <sub>2</sub>	1.35	2.00	1.52 <sup>1</sup> / <sub>2</sub>	1.30	1.44 <sup>3</sup> / <sub>4</sub>	.95	1.35	1.50	2.09 <sup>1</sup> / <sub>2</sub>	1.51 <sup>1</sup> / <sub>4</sub>
881..	1.41 <sup>3</sup> / <sub>4</sub>	1.61	1.61 <sup>1</sup> / <sub>2</sub>	1.40 <sup>1</sup> / <sub>4</sub>	2.00	1.72 <sup>1</sup> / <sub>2</sub>	1.35	1.48 <sup>3</sup> / <sub>4</sub>	.95	1.35	1.50	2.10 <sup>1</sup> / <sub>2</sub>	1.54 <sup>1</sup> / <sub>4</sub>
882..	1.41 <sup>3</sup> / <sub>4</sub>	1.56 <sup>1</sup> / <sub>2</sub>	1.62 <sup>1</sup> / <sub>4</sub>	1.51 <sup>1</sup> / <sub>2</sub>	2.00	1.72 <sup>1</sup> / <sub>2</sub>	1.35 <sup>1</sup> / <sub>4</sub>	1.43 <sup>1</sup> / <sub>2</sub>	.95	1.35	1.50	2.09	1.54 <sup>1</sup> / <sub>4</sub>
883..	1.41 <sup>3</sup> / <sub>4</sub>	1.60	1.65	1.48 <sup>1</sup> / <sub>4</sub>	2.00	1.85	1.35 <sup>3</sup> / <sub>4</sub>	1.44 <sup>1</sup> / <sub>2</sub>	.95	1.40	1.50	2.11 <sup>1</sup> / <sub>4</sub>	1.56 <sup>1</sup> / <sub>2</sub>
884..	1.41 <sup>3</sup> / <sub>4</sub>	1.63 <sup>3</sup> / <sub>4</sub>	1.63 <sup>1</sup> / <sub>2</sub>	1.48 <sup>3</sup> / <sub>4</sub>	2.00	1.85	1.37 <sup>1</sup> / <sub>4</sub>	1.45 <sup>1</sup> / <sub>4</sub>	.95	1.40	1.50	2.11	1.56 <sup>3</sup> / <sub>4</sub>
885..	1.41 <sup>3</sup> / <sub>4</sub>	1.68 <sup>3</sup> / <sub>4</sub>	1.60	1.44	2.00	1.62 <sup>1</sup> / <sub>2</sub>	1.22 <sup>1</sup> / <sub>2</sub>	1.40 <sup>1</sup> / <sub>4</sub>	.95	1.40	1.50	2.10 <sup>1</sup> / <sub>2</sub>	1.53
886..	1.41 <sup>3</sup> / <sub>4</sub>	1.66 <sup>3</sup> / <sub>4</sub>	1.69 <sup>3</sup> / <sub>4</sub>	1.44 <sup>1</sup> / <sub>2</sub>	2.00	1.65	1.35	1.39 <sup>1</sup> / <sub>4</sub>	.95	1.40	1.50	2.10	1.54 <sup>3</sup> / <sub>4</sub>
887..	1.42 <sup>3</sup> / <sub>4</sub>	1.72 <sup>1</sup> / <sub>2</sub>	1.70 <sup>3</sup> / <sub>4</sub>	1.44 <sup>1</sup> / <sub>2</sub>	1.83 <sup>1</sup> / <sub>4</sub>	1.87 <sup>1</sup> / <sub>2</sub>	1.37 <sup>3</sup> / <sub>4</sub>	1.48 <sup>3</sup> / <sub>4</sub>	.95	1.40	1.50	2.09 <sup>1</sup> / <sub>4</sub>	1.56 <sup>2</sup> / <sub>4</sub>
888..	1.42 <sup>3</sup> / <sub>4</sub>	1.86	1.70 <sup>1</sup> / <sub>2</sub>	1.45 <sup>1</sup> / <sub>2</sub>	1.83 <sup>1</sup> / <sub>4</sub>	1.87 <sup>1</sup> / <sub>2</sub>	1.39	1.44 <sup>3</sup> / <sub>4</sub>	.95	1.43	1.50	2.11	1.58 <sup>1</sup> / <sub>4</sub>
889..	1.40 <sup>3</sup> / <sub>4</sub>	1.83	1.70 <sup>3</sup> / <sub>4</sub>	1.44 <sup>3</sup> / <sub>4</sub>	1.83 <sup>1</sup> / <sub>4</sub>	1.87 <sup>1</sup> / <sub>2</sub>	1.39 <sup>1</sup> / <sub>4</sub>	1.58	.95	1.43	1.50	2.08 <sup>3</sup> / <sub>4</sub>	1.59
890..	1.43 <sup>3</sup> / <sub>4</sub>	1.86 <sup>3</sup> / <sub>4</sub>	1.70 <sup>3</sup> / <sub>4</sub>	1.44 <sup>3</sup> / <sub>4</sub>	1.83 <sup>1</sup> / <sub>4</sub>	1.85	1.41 <sup>3</sup> / <sub>4</sub>	1.58	.95	1.43	1.50	1.93 <sup>3</sup> / <sub>4</sub>	1.58
891..	1.27	1.85 <sup>3</sup> / <sub>4</sub>	1.70 <sup>3</sup> / <sub>4</sub>	1.45 <sup>3</sup> / <sub>4</sub>	1.58 <sup>1</sup> / <sub>4</sub>	1.82 <sup>1</sup> / <sub>2</sub>	1.41	1.58 <sup>1</sup> / <sub>4</sub>	.95	1.45	1.50	1.91	1.54 <sup>1</sup> / <sub>4</sub>
892..	1.27	1.85 <sup>3</sup> / <sub>4</sub>	1.72	1.46 <sup>1</sup> / <sub>2</sub>	1.58 <sup>1</sup> / <sub>4</sub>	1.77 <sup>1</sup> / <sub>2</sub>	1.42 <sup>1</sup> / <sub>2</sub>	1.58 <sup>1</sup> / <sub>4</sub>	.95	1.52	1.50	1.91	1.54 <sup>3</sup> / <sub>4</sub>
893..	1.27	1.88 <sup>1</sup> / <sub>2</sub>	1.73 <sup>3</sup> / <sub>4</sub>	1.46 <sup>3</sup> / <sub>4</sub>	1.58 <sup>1</sup> / <sub>4</sub>	1.85	1.42 <sup>1</sup> / <sub>4</sub>	1.58 <sup>1</sup> / <sub>4</sub>	.95	1.53	1.50	1.91 <sup>1</sup> / <sub>4</sub>	1.55 <sup>3</sup> / <sub>4</sub>
894..	1.25	1.83 <sup>1</sup> / <sub>4</sub>	1.66 <sup>3</sup> / <sub>4</sub>	1.36 <sup>1</sup> / <sub>2</sub>	1.58 <sup>1</sup> / <sub>4</sub>	1.77 <sup>1</sup> / <sub>2</sub>	1.14 <sup>1</sup> / <sub>2</sub>	1.39 <sup>1</sup> / <sub>2</sub>	.95	1.62	1.50	1.91 <sup>1</sup> / <sub>2</sub>	1.50
895..	1.28 <sup>3</sup> / <sub>4</sub>	1.82 <sup>3</sup> / <sub>4</sub>	1.70 <sup>1</sup> / <sub>2</sub>	1.40 <sup>1</sup> / <sub>4</sub>	1.58 <sup>1</sup> / <sub>4</sub>	1.70	1.11 <sup>1</sup> / <sub>4</sub>	1.39 <sup>1</sup> / <sub>4</sub>	.95	1.53	1.50	1.92 <sup>3</sup> / <sub>4</sub>	1.49 <sup>1</sup> / <sub>4</sub>
896..	1.35 <sup>3</sup> / <sub>4</sub>	1.83 <sup>1</sup> / <sub>4</sub>	1.69 <sup>1</sup> / <sub>2</sub>	1.38 <sup>1</sup> / <sub>4</sub>	1.58 <sup>1</sup> / <sub>4</sub>	1.65	1.13 <sup>3</sup> / <sub>4</sub>	1.40 <sup>3</sup> / <sub>4</sub>	.95	1.65	1.50	1.93 <sup>3</sup> / <sub>4</sub>	1.50 <sup>3</sup> / <sub>4</sub>
897..	1.35 <sup>3</sup> / <sub>4</sub>	1.84	1.71	1.36 <sup>3</sup> / <sub>4</sub>	1.58 <sup>1</sup> / <sub>4</sub>	1.65	1.14 <sup>1</sup> / <sub>4</sub>	1.49 <sup>3</sup> / <sub>4</sub>	.95	1.50	1.50	1.94 <sup>1</sup> / <sub>2</sub>	1.50 <sup>1</sup> / <sub>4</sub>
898..	1.35 <sup>3</sup> / <sub>4</sub>	1.84	1.71	1.37 <sup>1</sup> / <sub>2</sub>	1.58 <sup>1</sup> / <sub>4</sub>	1.80	1.28	1.40 <sup>3</sup> / <sub>4</sub>	.95	1.53	1.50	1.92 <sup>3</sup> / <sub>4</sub>	1.52 <sup>1</sup> / <sub>4</sub>



TABLE I.—AVERAGE DAILY WAGES IN GOLD IN CERTAIN CITIES OF THE UNITED STATES, 1870 TO 1898—Continued.

the American Almanac for 1879, have been used, as follows: 1870, \$121.3; 1871, \$110.7; 1872, \$109.1; 1873, \$112.7; 1874, \$111.4; 1875, \$112.5; 1876, \$112.8; 1877, \$106.2, and 1878, \$101.4.]

BOILER MAKERS.

Year.	Balti- more.	Bos- ton.	Chi- cago.	Cin- cinnati.	New Or- leans.	New York.	Phila- del- phia.	Pitts- burg and Alle- gheny.	Rich- mond.	St. Louis.	St. Paul.	San Fran- cisco.	Aver- age.
1870..	\$1.80 <sup>3</sup> / <sub>4</sub>	\$2.15 <sup>1</sup> / <sub>4</sub>	\$2.70	\$2.16 <sup>1</sup> / <sub>4</sub>	\$2.99 <sup>1</sup> / <sub>2</sub>	\$1.83 <sup>1</sup> / <sub>2</sub>	\$1.90 <sup>3</sup> / <sub>4</sub>	\$1.71 <sup>3</sup> / <sub>4</sub>	.....	\$2.38 <sup>1</sup> / <sub>2</sub>	\$2.83 <sup>1</sup> / <sub>2</sub>	\$3.38 <sup>1</sup> / <sub>4</sub>	\$2.35 <sup>3</sup> / <sub>4</sub>
1871..	1.98	2.13 <sup>3</sup> / <sub>4</sub>	3.02 <sup>1</sup> / <sub>2</sub>	2.29	3.29	2.01	2.07 <sup>1</sup> / <sub>4</sub>	2.04 <sup>1</sup> / <sub>2</sub>	.....	2.62	3.16 <sup>1</sup> / <sub>4</sub>	3.18 <sup>1</sup> / <sub>2</sub>	2.53
1872..	2.01	2.24	3.09 <sup>1</sup> / <sub>4</sub>	2.31 <sup>1</sup> / <sub>2</sub>	3.30 <sup>3</sup> / <sub>4</sub>	2.04	2.13 <sup>1</sup> / <sub>2</sub>	2.18 <sup>1</sup> / <sub>4</sub>	.....	2.65 <sup>3</sup> / <sub>4</sub>	3.20 <sup>1</sup> / <sub>4</sub>	3.19	2.58
1873..	1.94 <sup>1</sup> / <sub>2</sub>	2.20 <sup>1</sup> / <sub>2</sub>	2.97 <sup>1</sup> / <sub>4</sub>	2.31 <sup>1</sup> / <sub>2</sub>	3.21 <sup>1</sup> / <sub>2</sub>	1.97 <sup>1</sup> / <sub>2</sub>	2.05 <sup>1</sup> / <sub>2</sub>	2.11 <sup>1</sup> / <sub>2</sub>	.....	2.60 <sup>3</sup> / <sub>4</sub>	3.10 <sup>1</sup> / <sub>2</sub>	3.40 <sup>1</sup> / <sub>2</sub>	2.53 <sup>3</sup> / <sub>4</sub>
1874..	1.96 <sup>3</sup> / <sub>4</sub>	2.31	2.87 <sup>1</sup> / <sub>4</sub>	2.36 <sup>3</sup> / <sub>4</sub>	3.25	1.99 <sup>3</sup> / <sub>4</sub>	2.07 <sup>1</sup> / <sub>4</sub>	1.90	.....	2.64	3.14 <sup>1</sup> / <sub>4</sub>	3.38 <sup>1</sup> / <sub>2</sub>	2.53 <sup>3</sup> / <sub>4</sub>
1875..	1.95	2.22 <sup>1</sup> / <sub>4</sub>	2.71	2.22	3.21 <sup>1</sup> / <sub>4</sub>	1.95 <sup>1</sup> / <sub>2</sub>	2.06	1.76 <sup>1</sup> / <sub>4</sub>	.....	2.61 <sup>1</sup> / <sub>2</sub>	3.11	3.34	2.47
1876..	1.93	2.15 <sup>3</sup> / <sub>4</sub>	2.57	2.24 <sup>1</sup> / <sub>2</sub>	3.23 <sup>1</sup> / <sub>2</sub>	1.95	2.04	2.01 <sup>1</sup> / <sub>4</sub>	.....	2.36 <sup>3</sup> / <sub>4</sub>	2.66	3.34 <sup>1</sup> / <sub>4</sub>	2.41
1877..	2.05	2.24 <sup>1</sup> / <sub>2</sub>	2.73	2.26	3.42	2.07 <sup>1</sup> / <sub>4</sub>	2.18 <sup>1</sup> / <sub>4</sub>	2.11 <sup>1</sup> / <sub>2</sub>	.....	2.51 <sup>1</sup> / <sub>2</sub>	2.82 <sup>1</sup> / <sub>2</sub>	3.26 <sup>1</sup> / <sub>4</sub>	2.51 <sup>3</sup> / <sub>4</sub>
1878..	2.14 <sup>3</sup> / <sub>4</sub>	2.27 <sup>1</sup> / <sub>2</sub>	2.88 <sup>1</sup> / <sub>2</sub>	2.44 <sup>3</sup> / <sub>4</sub>	3.59 <sup>1</sup> / <sub>4</sub>	1.94 <sup>3</sup> / <sub>4</sub>	2.26 <sup>1</sup> / <sub>4</sub>	2.08 <sup>3</sup> / <sub>4</sub>	.....	2.62 <sup>1</sup> / <sub>2</sub>	2.95 <sup>3</sup> / <sub>4</sub>	3.25 <sup>3</sup> / <sub>4</sub>	2.59
1879..	2.17 <sup>3</sup> / <sub>4</sub>	2.33 <sup>1</sup> / <sub>4</sub>	2.90	2.51 <sup>3</sup> / <sub>4</sub>	3.59 <sup>1</sup> / <sub>2</sub>	2.20	2.32	2.17	.....	2.42 <sup>3</sup> / <sub>4</sub>	3.00	3.18 <sup>1</sup> / <sub>2</sub>	2.62
1880..	2.17	2.28 <sup>3</sup> / <sub>4</sub>	2.90	2.49 <sup>1</sup> / <sub>2</sub>	3.50	2.17 <sup>1</sup> / <sub>2</sub>	2.22 <sup>1</sup> / <sub>4</sub>	2.17 <sup>3</sup> / <sub>4</sub>	.....	2.42 <sup>3</sup> / <sub>4</sub>	3.00	3.21 <sup>1</sup> / <sub>4</sub>	2.59 <sup>3</sup> / <sub>4</sub>
1881..	2.17	2.52	2.90	2.40	3.00	2.15	2.22 <sup>1</sup> / <sub>4</sub>	2.19 <sup>1</sup> / <sub>2</sub>	.....	2.42 <sup>3</sup> / <sub>4</sub>	3.00	3.18 <sup>1</sup> / <sub>4</sub>	2.56
1882..	2.26	2.60 <sup>1</sup> / <sub>2</sub>	2.90	2.49 <sup>3</sup> / <sub>4</sub>	3.00	2.35	2.33 <sup>1</sup> / <sub>2</sub>	2.26 <sup>1</sup> / <sub>4</sub>	.....	2.83 <sup>1</sup> / <sub>2</sub>	3.00	3.21	2.66
1883..	2.38 <sup>1</sup> / <sub>2</sub>	2.56	2.90	2.41 <sup>1</sup> / <sub>4</sub>	3.00	2.60	2.30 <sup>1</sup> / <sub>2</sub>	2.29 <sup>3</sup> / <sub>4</sub>	.....	2.83 <sup>1</sup> / <sub>2</sub>	3.00	3.15 <sup>3</sup> / <sub>4</sub>	2.67 <sup>3</sup> / <sub>4</sub>
1884..	2.43 <sup>1</sup> / <sub>2</sub>	2.51 <sup>3</sup> / <sub>4</sub>	2.90	2.47	3.00	2.52 <sup>1</sup> / <sub>2</sub>	2.33	2.29 <sup>1</sup> / <sub>4</sub>	.....	2.83 <sup>1</sup> / <sub>2</sub>	3.00	3.27 <sup>1</sup> / <sub>4</sub>	2.69
1885..	2.43 <sup>1</sup> / <sub>2</sub>	2.54 <sup>1</sup> / <sub>2</sub>	2.90	2.42	2.63 <sup>1</sup> / <sub>4</sub>	2.27 <sup>1</sup> / <sub>2</sub>	2.32	2.16 <sup>1</sup> / <sub>2</sub>	.....	2.78 <sup>1</sup> / <sub>4</sub>	3.00	3.31 <sup>1</sup> / <sub>2</sub>	2.61 <sup>3</sup> / <sub>4</sub>
1886..	2.43 <sup>1</sup> / <sub>2</sub>	2.46	2.90	2.00 <sup>3</sup> / <sub>4</sub>	2.63 <sup>1</sup> / <sub>4</sub>	2.37 <sup>1</sup> / <sub>2</sub>	2.35	2.34 <sup>3</sup> / <sub>4</sub>	.....	2.78	3.00	3.34 <sup>3</sup> / <sub>4</sub>	2.60 <sup>1</sup> / <sub>4</sub>
1887..	2.43 <sup>1</sup> / <sub>2</sub>	2.45 <sup>1</sup> / <sub>2</sub>	2.90	1.97	2.64 <sup>1</sup> / <sub>4</sub>	2.50	2.34 <sup>1</sup> / <sub>2</sub>	2.36 <sup>1</sup> / <sub>4</sub>	.....	2.79 <sup>1</sup> / <sub>2</sub>	3.00	3.39 <sup>1</sup> / <sub>4</sub>	2.61 <sup>1</sup> / <sub>2</sub>
1888..	2.43 <sup>1</sup> / <sub>2</sub>	2.42 <sup>1</sup> / <sub>4</sub>	2.90	2.15	2.60	2.60	2.38 <sup>1</sup> / <sub>2</sub>	2.32 <sup>1</sup> / <sub>2</sub>	.....	2.80	3.25	3.41 <sup>1</sup> / <sub>4</sub>	2.66 <sup>1</sup> / <sub>2</sub>
1889..	2.43 <sup>1</sup> / <sub>2</sub>	2.48	2.90	2.15	2.64 <sup>1</sup> / <sub>4</sub>	2.57 <sup>1</sup> / <sub>2</sub>	2.33 <sup>1</sup> / <sub>2</sub>	2.24 <sup>1</sup> / <sub>2</sub>	.....	2.76	3.25	3.46	2.65 <sup>3</sup> / <sub>4</sub>
1890..	2.43 <sup>1</sup> / <sub>2</sub>	2.56 <sup>1</sup> / <sub>4</sub>	2.90	2.16 <sup>1</sup> / <sub>4</sub>	2.62 <sup>1</sup> / <sub>2</sub>	2.47 <sup>1</sup> / <sub>2</sub>	2.31 <sup>1</sup> / <sub>2</sub>	2.28 <sup>3</sup> / <sub>4</sub>	.....	2.75	3.25	3.32 <sup>1</sup> / <sub>4</sub>	2.64 <sup>1</sup> / <sub>2</sub>
1891..	2.43 <sup>1</sup> / <sub>2</sub>	2.46 <sup>1</sup> / <sub>2</sub>	2.90	2.07 <sup>1</sup> / <sub>2</sub>	2.64 <sup>1</sup> / <sub>4</sub>	2.50	2.27 <sup>1</sup> / <sub>4</sub>	2.31	.....	2.73 <sup>1</sup> / <sub>2</sub>	3.25	3.23 <sup>1</sup> / <sub>2</sub>	2.62
1892..	2.43 <sup>1</sup> / <sub>2</sub>	2.56 <sup>1</sup> / <sub>4</sub>	2.77 <sup>1</sup> / <sub>2</sub>	2.00 <sup>3</sup> / <sub>4</sub>	2.62 <sup>1</sup> / <sub>2</sub>	2.45	2.25 <sup>3</sup> / <sub>4</sub>	2.28 <sup>3</sup> / <sub>4</sub>	.....	2.77 <sup>3</sup> / <sub>4</sub>	3.25	3.12	2.59 <sup>1</sup> / <sub>2</sub>
1893..	2.43 <sup>1</sup> / <sub>2</sub>	2.37 <sup>1</sup> / <sub>2</sub>	2.87 <sup>1</sup> / <sub>2</sub>	2.07 <sup>1</sup> / <sub>2</sub>	2.65 <sup>3</sup> / <sub>4</sub>	2.65	2.31	2.27 <sup>3</sup> / <sub>4</sub>	.....	2.78 <sup>1</sup> / <sub>2</sub>	3.00	2.94	2.58
1894..	2.43 <sup>1</sup> / <sub>2</sub>	2.46 <sup>1</sup> / <sub>2</sub>	2.90	2.10	2.64 <sup>1</sup> / <sub>4</sub>	2.72 <sup>1</sup> / <sub>2</sub>	2.25	2.18 <sup>3</sup> / <sub>4</sub>	.....	2.77 <sup>3</sup> / <sub>4</sub>	3.00	2.73 <sup>3</sup> / <sub>4</sub>	2.56 <sup>1</sup> / <sub>2</sub>
1895..	2.43 <sup>1</sup> / <sub>2</sub>	2.47 <sup>1</sup> / <sub>2</sub>	2.90	1.94	2.63 <sup>1</sup> / <sub>4</sub>	2.35	2.24 <sup>1</sup> / <sub>2</sub>	2.32 <sup>1</sup> / <sub>2</sub>	.....	2.74	3.00	2.97 <sup>1</sup> / <sub>4</sub>	2.54 <sup>1</sup> / <sub>2</sub>
1896..	2.43 <sup>1</sup> / <sub>2</sub>	2.45	2.90	2.02 <sup>1</sup> / <sub>2</sub>	2.64 <sup>1</sup> / <sub>4</sub>	2.40	2.25 <sup>3</sup> / <sub>4</sub>	2.26	.....	2.77 <sup>3</sup> / <sub>4</sub>	3.00	2.95 <sup>1</sup> / <sub>2</sub>	2.55 <sup>1</sup> / <sub>2</sub>
1897..	2.43 <sup>1</sup> / <sub>2</sub>	2.47 <sup>3</sup> / <sub>4</sub>	2.90	1.97	2.63 <sup>1</sup> / <sub>4</sub>	2.40	2.23	2.17 <sup>3</sup> / <sub>4</sub>	.....	2.75	3.00	2.95 <sup>3</sup> / <sub>4</sub>	2.54
1898..	2.43 <sup>1</sup> / <sub>2</sub>	2.48	2.90	2.02 <sup>1</sup> / <sub>2</sub>	2.60	2.52 <sup>1</sup> / <sub>2</sub>	2.26 <sup>1</sup> / <sub>2</sub>	2.26 <sup>3</sup> / <sub>4</sub>	.....	2.75	3.00	2.96 <sup>1</sup> / <sub>4</sub>	2.56 <sup>1</sup> / <sub>4</sub>

BOILER MAKERS' HELPERS.

1870..	1.06 <sup>1</sup> / <sub>4</sub>	1.29 <sup>3</sup> / <sub>4</sub>	1.52 <sup>1</sup> / <sub>2</sub>	0.94 <sup>1</sup> / <sub>2</sub>	1.65	1.40 <sup>1</sup> / <sub>4</sub>	1.44 <sup>3</sup> / <sub>4</sub>	1.05	.....	1.25	1.65	2.23 <sup>3</sup> / <sub>4</sub>	1.41
1871..	1.16 <sup>1</sup> / <sub>2</sub>	1.56 <sup>1</sup> / <sub>2</sub>	1.60 <sup>1</sup> / <sub>2</sub>	1.09	1.80 <sup>3</sup> / <sub>4</sub>	1.53 <sup>1</sup> / <sub>2</sub>	1.58 <sup>3</sup> / <sub>4</sub>	1.18	.....	1.39 <sup>1</sup> / <sub>2</sub>	1.80 <sup>3</sup> / <sub>4</sub>	2.01 <sup>1</sup> / <sub>2</sub>	1.52 <sup>1</sup> / <sub>4</sub>
1872..	1.18 <sup>1</sup> / <sub>4</sub>	1.41 <sup>1</sup> / <sub>2</sub>	1.69 <sup>1</sup> / <sub>2</sub>	1.24 <sup>1</sup> / <sub>4</sub>	1.83 <sup>1</sup> / <sub>4</sub>	1.53 <sup>1</sup> / <sub>2</sub>	1.56 <sup>1</sup> / <sub>2</sub>	1.38	.....	1.40 <sup>1</sup> / <sub>4</sub>	1.83 <sup>1</sup> / <sub>4</sub>	2.01 <sup>1</sup> / <sub>4</sub>	1.57 <sup>1</sup> / <sub>4</sub>
1873..	1.14 <sup>1</sup> / <sub>2</sub>	1.22 <sup>3</sup> / <sub>4</sub>	1.64 <sup>1</sup> / <sub>4</sub>	1.36	1.77 <sup>1</sup> / <sub>2</sub>	1.39 <sup>3</sup> / <sub>4</sub>	1.55 <sup>1</sup> / <sub>4</sub>	1.38	.....	1.37 <sup>1</sup> / <sub>2</sub>	1.77 <sup>1</sup> / <sub>2</sub>	2.03	1.51 <sup>1</sup> / <sub>2</sub>
1874..	1.15 <sup>3</sup> / <sub>4</sub>	1.24	1.66	1.30 <sup>3</sup> / <sub>4</sub>	1.79 <sup>1</sup> / <sub>2</sub>	1.41 <sup>1</sup> / <sub>2</sub>	1.56 <sup>3</sup> / <sub>4</sub>	1.39	.....	1.39	1.79 <sup>1</sup> / <sub>2</sub>	2.07 <sup>1</sup> / <sub>2</sub>	1.52 <sup>3</sup> / <sub>4</sub>
1875..	1.14 <sup>1</sup> / <sub>2</sub>	1.28 <sup>1</sup> / <sub>2</sub>	1.53 <sup>1</sup> / <sub>4</sub>	1.71 <sup>3</sup> / <sub>4</sub>	1.77 <sup>3</sup> / <sub>4</sub>	1.42 <sup>1</sup> / <sub>4</sub>	1.55 <sup>3</sup> / <sub>4</sub>	1.23	.....	1.37 <sup>1</sup> / <sub>2</sub>	1.77 <sup>3</sup> / <sub>4</sub>	2.02 <sup>1</sup> / <sub>4</sub>	1.53 <sup>1</sup> / <sub>4</sub>
1876..	1.14 <sup>1</sup> / <sub>4</sub>	1.18 <sup>3</sup> / <sub>4</sub>	1.50 <sup>3</sup> / <sub>4</sub>	1.53 <sup>1</sup> / <sub>4</sub>	1.77 <sup>1</sup> / <sub>4</sub>	1.28 <sup>1</sup> / <sub>2</sub>	1.50	1.24 <sup>1</sup> / <sub>4</sub>	.....	1.37 <sup>3</sup> / <sub>4</sub>	1.55 <sup>1</sup> / <sub>4</sub>	2.01 <sup>3</sup> / <sub>4</sub>	1.46 <sup>1</sup> / <sub>2</sub>
1877..	1.21 <sup>1</sup> / <sub>2</sub>	1.21	1.53	1.66	1.88 <sup>1</sup> / <sub>4</sub>	1.36 <sup>1</sup> / <sub>2</sub>	1.62	1.21 <sup>3</sup> / <sub>4</sub>	.....	1.46 <sup>1</sup> / <sub>4</sub>	1.64 <sup>3</sup> / <sub>4</sub>	1.96 <sup>3</sup> / <sub>4</sub>	1.52 <sup>1</sup> / <sub>2</sub>
1878..	1.27 <sup>1</sup> / <sub>2</sub>	1.32 <sup>3</sup> / <sub>4</sub>	1.67 <sup>3</sup> / <sub>4</sub>	1.73 <sup>1</sup> / <sub>2</sub>	1.97 <sup>1</sup> / <sub>4</sub>	1.35 <sup>1</sup> / <sub>2</sub>	1.67 <sup>3</sup> / <sub>4</sub>	1.27 <sup>3</sup> / <sub>4</sub>	.....	1.53	1.72 <sup>1</sup> / <sub>2</sub>	1.94	1.59
1879..	1.29	1.39 <sup>3</sup> / <sub>4</sub>	1.70	1.75 <sup>3</sup> / <sub>4</sub>	2.00	1.50	1.69	1.32 <sup>3</sup> / <sub>4</sub>	.....	1.37	1.75	1.96	1.61 <sup>1</sup> / <sub>4</sub>
1880..	1.28	1.37 <sup>3</sup> / <sub>4</sub>	1.62 <sup>1</sup> / <sub>2</sub>	1.70 <sup>3</sup> / <sub>4</sub>	1.61	1.50	1.73 <sup>3</sup> / <sub>4</sub>	1.25 <sup>3</sup> / <sub>4</sub>	.....	1.37	1.75	1.97 <sup>1</sup> / <sub>4</sub>	1.56 <sup>1</sup> / <sub>4</sub>
1881..	1.28	1.43 <sup>3</sup> / <sub>4</sub>	1.65	1.65 <sup>3</sup> / <sub>4</sub>	1.60	1.57 <sup>1</sup> / <sub>2</sub>	1.69 <sup>1</sup> / <sub>4</sub>	1.37 <sup>1</sup> / <sub>2</sub>	.....	1.36 <sup>1</sup> / <sub>2</sub>	1.75	2.00	1.58
1882..	1.28	1.48 <sup>3</sup> / <sub>4</sub>	1.65	1.62 <sup>1</sup> / <sub>2</sub>	1.60 <sup>1</sup> / <sub>2</sub>	1.67 <sup>1</sup> / <sub>2</sub>	1.70 <sup>3</sup> / <sub>4</sub>	1.46 <sup>1</sup> / <sub>2</sub>	.....	1.55	1.75	2.01 <sup>1</sup> / <sub>2</sub>	1.61 <sup>3</sup> / <sub>4</sub>
1883..	1.36 <sup>1</sup> / <sub>2</sub>	1.42 <sup>3</sup> / <sub>4</sub>	1.65	1.51 <sup>3</sup> / <sub>4</sub>	1.50	1.65	1.69 <sup>1</sup> / <sub>4</sub>	1.46 <sup>1</sup> / <sub>2</sub>	.....	1.55	1.75	2.07 <sup>3</sup> / <sub>4</sub>	1.60 <sup>1</sup> / <sub>2</sub>
1884..	1.36 <sup>1</sup> / <sub>2</sub>	1.47 <sup>1</sup> / <sub>2</sub>	1.62 <sup>1</sup> / <sub>2</sub>	1.57	1.58 <sup>1</sup> / <sub>2</sub>	1.42 <sup>1</sup> / <sub>2</sub>	1.70 <sup>3</sup> / <sub>4</sub>	1.46 <sup>1</sup> / <sub>2</sub>	.....	1.55	1.75	2.09 <sup>3</sup> / <sub>4</sub>	1.60
1885..	1.36 <sup>1</sup> / <sub>2</sub>	1.46 <sup>3</sup> / <sub>4</sub>	1.55	1.60 <sup>1</sup> / <sub>2</sub>	1.58 <sup>1</sup> / <sub>2</sub>	1.45	1.74 <sup>3</sup> / <sub>4</sub>	1.37 <sup>1</sup> / <sub>2</sub>	.....	1.49 <sup>1</sup> / <sub>2</sub>	1.75	2.09	1.58 <sup>3</sup> / <sub>4</sub>
1886..	1.28	1.54 <sup>1</sup> / <sub>4</sub>	1.75	1.42 <sup>1</sup> / <sub>2</sub>	1.57 <sup>1</sup> / <sub>4</sub>	1.52 <sup>1</sup> / <sub>2</sub>	1.72 <sup>1</sup> / <sub>4</sub>	1.35 <sup>1</sup> / <sub>2</sub>	.....	1.46 <sup>1</sup> / <sub>2</sub>	1.75	2.08 <sup>1</sup> / <sub>4</sub>	1.58 <sup>3</sup> / <sub>4</sub>
1887..	1.36 <sup>1</sup> / <sub>2</sub>	1.50 <sup>1</sup> / <sub>2</sub>	1.70	1.18 <sup>1</sup> / <sub>2</sub>	1.56 <sup>1</sup> / <sub>2</sub>	1.42 <sup>1</sup> / <sub>2</sub>	1.72 <sup>1</sup> / <sub>2</sub>	1.41 <sup>3</sup> / <sub>4</sub>	.....	1.50 <sup>1</sup> / <sub>2</sub>	1.75	2.10 <sup>1</sup> / <sub>4</sub>	1.56 <sup>3</sup> / <sub>4</sub>
1888..	1.36 <sup>1</sup> / <sub>2</sub>	1.50	1.75	1.28	1.54 <sup>1</sup> / <sub>4</sub>	1.47 <sup>1</sup> / <sub>2</sub>	1.69	1.33 <sup>1</sup> / <sub>2</sub>	.....	1.45 <sup>3</sup> / <sub>4</sub>	2.00	2.11 <sup>1</sup> / <sub>2</sub>	1.59 <sup>1</sup> / <sub>4</sub>
1889..	1.36 <sup>1</sup> / <sub>2</sub>	1.52 <sup>1</sup> / <sub>2</sub>	1.67 <sup>1</sup> / <sub>2</sub>	1.31 <sup>2</sup> / <sub>4</sub>	1.54 <sup>1</sup> / <sub>4</sub>	1.47 <sup>1</sup> / <sub>2</sub>	1.73 <sup>1</sup> / <sub>4</sub>	1.32 <sup>3</sup> / <sub>4</sub>	.....	1.44 <sup>1</sup> / <sub>2</sub>	2.00	2.13 <sup>1</sup> / <sub>2</sub>	1.59 <sup>1</sup> / <sub>2</sub>
1890..	1.36 <sup>1</sup> / <sub>2</sub>	1.49 <sup>1</sup> / <sub>4</sub>	1.65	1.34	1.52 <sup>1</sup> / <sub>2</sub>	1.45	1.75	1.33	.....	1.36 <sup>3</sup> / <sub>4</sub>	2.00	2.06 <sup>3</sup> / <sub>4</sub>	1.57 <sup>1</sup> / <sub>2</sub>
1891..	1.36 <sup>1</sup> / <sub>2</sub>	1.48 <sup>3</sup> / <sub>4</sub>	1.67 <sup>1</sup> / <sub>2</sub>	1.27	1.50	1.62 <sup>1</sup> / <sub>2</sub>	1.71 <sup>3</sup> / <sub>4</sub>	1.35 <sup>3</sup> / <sub>4</sub>	.....	1.28 <sup>1</sup> / <sub>4</sub>	2.00	2.02 <sup>1</sup> / <sub>4</sub>	1.57 <sup>1</sup> / <sub>4</sub>
1892..	1.36 <sup>1</sup> / <sub>2</sub>	1.41 <sup>1</sup> / <sub>2</sub>	1.67 <sup>1</sup> / <sub>2</sub>	1.23 <sup>3</sup> / <sub>4</sub>	1.50	1.40	1.73 <sup>3</sup> / <sub>4</sub>	1.43 <sup>1</sup> / <sub>2</sub>	.....	1.37	2.00	1.98	1.55 <sup>3</sup> / <sub>4</sub>
1893..	1.36 <sup>1</sup> / <sub>2</sub>	1.43	1.75	1.22 <sup>3</sup> / <sub>4</sub>	1.50	1.45	1.75	1.28 <sup>1</sup> / <sub>2</sub>	.....	1.38	1.75	1.95	1.53 <sup>1</sup> / <sub>4</sub>
1894..	1.36 <sup>1</sup> / <sub>2</sub>	1.47 <sup>1</sup> / <sub>2</sub>	1.65	1.23 <sup>3</sup> / <sub>4</sub>	1.50	1.42 <sup>1</sup> / <sub>2</sub>	1.75	1.26	.....	1.55 <sup>1</sup> / <sub>2</sub>	1.75	1.93	1.53 <sup>3</sup> / <sub>4</sub>
1895..	1.36 <sup>1</sup> / <sub>2</sub>	1.43 <sup>3</sup> / <sub>4</sub>	1.67 <sup>1</sup> / <sub>2</sub>	1.19 <sup>1</sup> / <sub>4</sub>	1.50	1.37 <sup>1</sup> / <sub>2</sub>	1.75	1.29 <sup>1</sup> / <sub>2</sub>	.....	1.49	1.75	1.98	1.52 <sup>3</sup> / <sub>4</sub>
1896..	1.36 <sup>1</sup> / <sub>2</sub>	1.46 <sup>1</sup> / <sub>2</sub>	1.65	1.20 <sup>1</sup> / <sub>2</sub>	1.50	1.42 <sup>1</sup> / <sub>2</sub>	1.72	1.36	.....	1.43 <sup>1</sup> / <sub>4</sub>	1.75	1.98 <sup>1</sup> / <sub>4</sub>	1.53 <sup>1</sup> / <sub>4</sub>
1897..	1.36 <sup>1</sup> / <sub>2</sub>	1.46 <sup>1</sup> / <sub>2</sub>	1.67 <sup>1</sup> / <sub>2</sub>	1.20 <sup>3</sup> / <sub>4</sub>	1.50	1.42 <sup>1</sup> / <sub>2</sub>	1.72 <sup>3</sup> / <sub>4</sub>	1.34 <sup>3</sup> / <sub>4</sub>	.....	1.48 <sup>1</sup> / <sub>4</sub>	1.75	1.98 <sup>1</sup> / <sub>4</sub>	1.54
1898..	1.36 <sup>1</sup> / <sub>2</sub>	1.46 <sup>3</sup> / <sub>4</sub>	1.67 <sup>1</sup> / <sub>2</sub>	1.18 <sup>3</sup> / <sub>4</sub>	1.50	1.40	1.73 <sup>3</sup> / <sub>4</sub>	1.40	.....	1.43 <sup>1</sup> / <sub>2</sub>	1.75	1.94 <sup>1</sup> / <sub>4</sub>	1.53 <sup>1</sup> / <sub>4</sub>



TABLE I.—AVERAGE DAILY WAGES IN GOLD IN CERTAIN CITIES OF THE UNITED STATES, 1870 TO 1898—Continued.

[The wages for the years 1870 to 1878, inclusive, except in the case of San Francisco, were reported in currency. In converting wages in currency into wages in gold the value of \$100 gold in currency for January of each year from 1870 to 1877 and the average value for the entire year 1878, as given in

BRICKLAYERS.

Year.	Balti- more.	Bos- ton.	Chi- cago.	Cin- cin- nati.	New Or- leans.	New York.	Phila- del- phia.	Pitts- burg and Alle- gheny.	Rich- mond.	St. Louis.	St. Paul.	San Fran- cisco.	Aver- age.
1870..	\$3.42 <sup>1</sup> / <sub>2</sub>	\$3.33 <sup>1</sup> / <sub>2</sub>	\$2.78 <sup>1</sup> / <sub>4</sub>	\$3.71	\$2.06	\$3.16 <sup>1</sup> / <sub>4</sub>	\$2.96 <sup>3</sup> / <sub>4</sub>	.....	\$2.88 <sup>1</sup> / <sub>2</sub>	\$2.47 <sup>1</sup> / <sub>4</sub>	\$2.88 <sup>1</sup> / <sub>2</sub>	\$5.00	\$3.15 <sup>1</sup> / <sub>4</sub>
1871..	3.87	3.89	4.51 <sup>3</sup> / <sub>4</sub>	4.51 <sup>3</sup> / <sub>4</sub>	2.25 <sup>3</sup> / <sub>4</sub>	3.46 <sup>3</sup> / <sub>4</sub>	3.14 <sup>1</sup> / <sub>2</sub>	.....	3.16 <sup>1</sup> / <sub>4</sub>	2.71	3.16 <sup>1</sup> / <sub>4</sub>	5.00	3.61
1872..	3.83 <sup>3</sup> / <sub>4</sub>	4.10 <sup>1</sup> / <sub>4</sub>	4.58 <sup>1</sup> / <sub>4</sub>	4.58 <sup>1</sup> / <sub>4</sub>	2.36 <sup>1</sup> / <sub>2</sub>	3.51 <sup>1</sup> / <sub>2</sub>	3.22 <sup>3</sup> / <sub>4</sub>	.....	3.20 <sup>1</sup> / <sub>4</sub>	2.75	3.20 <sup>3</sup> / <sub>4</sub>	5.00	3.67
1873..	3.30 <sup>1</sup> / <sub>4</sub>	3.58 <sup>1</sup> / <sub>4</sub>	3.10 <sup>1</sup> / <sub>2</sub>	4.43 <sup>3</sup> / <sub>4</sub>	2.21 <sup>1</sup> / <sub>2</sub>	3.38 <sup>1</sup> / <sub>4</sub>	3.18	.....	3.10 <sup>1</sup> / <sub>2</sub>	2.44	3.10 <sup>1</sup> / <sub>2</sub>	5.00	3.35
1874..	2.87	3.17	2.24 <sup>1</sup> / <sub>2</sub>	4.48 <sup>3</sup> / <sub>4</sub>	2.17	3.05 <sup>1</sup> / <sub>2</sub>	3.29 <sup>1</sup> / <sub>4</sub>	.....	2.69 <sup>1</sup> / <sub>2</sub>	2.46 <sup>3</sup> / <sub>4</sub>	3.14 <sup>1</sup> / <sub>2</sub>	5.00	3.14 <sup>1</sup> / <sub>2</sub>
1875..	3.30 <sup>1</sup> / <sub>4</sub>	3.13 <sup>1</sup> / <sub>2</sub>	2.22 <sup>1</sup> / <sub>4</sub>	4.00	2.22 <sup>1</sup> / <sub>4</sub>	2.98 <sup>1</sup> / <sub>4</sub>	3.33 <sup>1</sup> / <sub>4</sub>	.....	2.44 <sup>1</sup> / <sub>2</sub>	2.44 <sup>1</sup> / <sub>2</sub>	3.11	5.00	3.11
1876..	3.27 <sup>1</sup> / <sub>2</sub>	3.05 <sup>3</sup> / <sub>4</sub>	2.66	3.99	2.29	2.75 <sup>1</sup> / <sub>4</sub>	2.99 <sup>1</sup> / <sub>2</sub>	.....	2.21 <sup>3</sup> / <sub>4</sub>	2.43 <sup>3</sup> / <sub>4</sub>	3.10 <sup>1</sup> / <sub>4</sub>	4.22 <sup>1</sup> / <sub>4</sub>	3.00
1877..	3.50 <sup>1</sup> / <sub>2</sub>	3.04 <sup>1</sup> / <sub>4</sub>	2.82 <sup>1</sup> / <sub>2</sub>	3.76 <sup>3</sup> / <sub>4</sub>	2.41 <sup>1</sup> / <sub>4</sub>	2.68 <sup>1</sup> / <sub>2</sub>	3.19 <sup>1</sup> / <sub>2</sub>	.....	2.35 <sup>1</sup> / <sub>2</sub>	2.59	3.29 <sup>1</sup> / <sub>2</sub>	4.14 <sup>1</sup> / <sub>4</sub>	3.07 <sup>1</sup> / <sub>2</sub>
1878..	3.66	2.95 <sup>3</sup> / <sub>4</sub>	2.95 <sup>3</sup> / <sub>4</sub>	3.94 <sup>1</sup> / <sub>2</sub>	2.52 <sup>1</sup> / <sub>4</sub>	2.76 <sup>3</sup> / <sub>4</sub>	2.95 <sup>1</sup> / <sub>4</sub>	.....	2.46 <sup>1</sup> / <sub>2</sub>	2.95 <sup>3</sup> / <sub>4</sub>	3.45 <sup>1</sup> / <sub>4</sub>	4.00	3.15
1879..	3.70	2.74 <sup>1</sup> / <sub>4</sub>	3.50	3.50	2.25	3.14 <sup>3</sup> / <sub>4</sub>	2.75	.....	2.50	3.00	3.50	4.00	3.14 <sup>1</sup> / <sub>2</sub>
1880..	3.70	2.59	3.50	3.50	2.56 <sup>1</sup> / <sub>2</sub>	3.12 <sup>1</sup> / <sub>4</sub>	2.55 <sup>3</sup> / <sub>4</sub>	.....	2.50	3.50	3.50	4.00	3.18 <sup>1</sup> / <sub>2</sub>
1881..	3.66 <sup>3</sup> / <sub>4</sub>	2.72	3.50	4.00	2.87 <sup>1</sup> / <sub>2</sub>	3.50	2.65	.....	2.50	4.00	4.72 <sup>1</sup> / <sub>4</sub>	4.00	3.46 <sup>3</sup> / <sub>4</sub>
1882..	4.00	3.19 <sup>3</sup> / <sub>4</sub>	3.50	4.00	2.50	3.89 <sup>1</sup> / <sub>4</sub>	2.66 <sup>3</sup> / <sub>4</sub>	.....	3.00	4.00	5.00	5.15 <sup>1</sup> / <sub>2</sub>	3.72
1883..	4.00	3.16 <sup>1</sup> / <sub>4</sub>	3.50	4.50	2.50	4.00	2.88 <sup>1</sup> / <sub>4</sub>	.....	3.50	4.50	5.00	5.25	3.89
1884..	4.25	3.27 <sup>1</sup> / <sub>2</sub>	3.50	4.50	2.50	4.00	3.00	.....	3.50	4.50	5.00	5.41 <sup>3</sup> / <sub>4</sub>	3.95
1885..	4.03 <sup>3</sup> / <sub>4</sub>	3.33	4.00	4.50	2.50	3.84	3.36 <sup>3</sup> / <sub>4</sub>	.....	3.50	4.50	5.00	5.35 <sup>3</sup> / <sub>4</sub>	3.99 <sup>1</sup> / <sub>2</sub>
1886..	3.87 <sup>1</sup> / <sub>2</sub>	3.34	4.00	4.50	2.56 <sup>1</sup> / <sub>4</sub>	4.03 <sup>1</sup> / <sub>2</sub>	3.42 <sup>1</sup> / <sub>4</sub>	.....	3.50	3.60	5.00	5.39	3.93
1887..	3.81 <sup>1</sup> / <sub>4</sub>	3.49 <sup>3</sup> / <sub>4</sub>	4.00	5.00	2.37 <sup>1</sup> / <sub>2</sub>	4.03 <sup>1</sup> / <sub>2</sub>	3.56	.....	3.50	4.00	5.00	5.39	4.01 <sup>1</sup> / <sub>2</sub>
1888..	4.00	3.47 <sup>1</sup> / <sub>4</sub>	4.00	4.50	2.41	4.03 <sup>1</sup> / <sub>2</sub>	3.59 <sup>1</sup> / <sub>2</sub>	.....	3.50	4.40	5.00	5.41 <sup>3</sup> / <sub>4</sub>	4.03
1889..	4.00	3.53 <sup>3</sup> / <sub>4</sub>	4.00	5.00	2.58 <sup>1</sup> / <sub>4</sub>	4.02 <sup>3</sup> / <sub>4</sub>	3.61 <sup>1</sup> / <sub>4</sub>	.....	3.50	4.40	5.00	5.77	4.13
1890..	3.75	3.65 <sup>1</sup> / <sub>4</sub>	4.00	4.95	2.56 <sup>1</sup> / <sub>4</sub>	4.00	3.77 <sup>3</sup> / <sub>4</sub>	.....	4.00	4.40	4.50	5.83 <sup>1</sup> / <sub>4</sub>	4.13
1891..	3.71 <sup>3</sup> / <sub>4</sub>	3.74 <sup>1</sup> / <sub>2</sub>	4.00	4.95	4.05	4.00	3.95 <sup>1</sup> / <sub>4</sub>	.....	4.00	4.40	4.50	5.81	4.28 <sup>1</sup> / <sub>2</sub>
1892..	3.77 <sup>1</sup> / <sub>4</sub>	3.68 <sup>1</sup> / <sub>4</sub>	4.00	4.95	4.05	4.00	3.80 <sup>3</sup> / <sub>4</sub>	.....	3.60	4.40	4.50	5.83 <sup>1</sup> / <sub>4</sub>	4.23 <sup>1</sup> / <sub>2</sub>
1893..	3.76 <sup>3</sup> / <sub>4</sub>	3.75	4.00	4.50	4.05	4.00	3.84 <sup>1</sup> / <sub>2</sub>	.....	3.60	4.40	4.50	5.00	4.12 <sup>1</sup> / <sub>4</sub>
1894..	3.70 <sup>1</sup> / <sub>4</sub>	3.65 <sup>1</sup> / <sub>4</sub>	4.00	4.50	4.05	4.00	3.93	.....	3.60	4.40	4.50	5.00	4.12 <sup>1</sup> / <sub>4</sub>
1895..	3.00	3.33 <sup>1</sup> / <sub>2</sub>	4.00	4.50	4.05	4.00	3.89 <sup>3</sup> / <sub>4</sub>	.....	3.60	4.40	4.50	5.00	4.02 <sup>1</sup> / <sub>4</sub>
1896..	3.00	3.29 <sup>3</sup> / <sub>4</sub>	4.00	3.60	3.37 <sup>1</sup> / <sub>2</sub>	4.00	3.79	.....	3.15	4.40	4.50	5.00	3.82 <sup>3</sup> / <sub>4</sub>
1897..	3.00	3.45 <sup>1</sup> / <sub>4</sub>	4.00	3.20	3.39 <sup>3</sup> / <sub>4</sub>	4.00	3.63 <sup>1</sup> / <sub>2</sub>	.....	2.50	4.40	4.50	5.00	3.73 <sup>1</sup> / <sub>2</sub>
1898..	3.00	3.40 <sup>1</sup> / <sub>2</sub>	4.00	3.20	3.37 <sup>1</sup> / <sub>2</sub>	4.00	2.76 <sup>3</sup> / <sub>4</sub>	.....	2.25	3.20	4.50	5.00	3.51 <sup>3</sup> / <sub>4</sub>

CABINETMAKERS.

1870..	1.87 <sup>1</sup> / <sub>2</sub>	2.47	2.84 <sup>1</sup> / <sub>2</sub>	1.78 <sup>3</sup> / <sub>4</sub>	2.88 <sup>1</sup> / <sub>2</sub>	1.68	1.81 <sup>1</sup> / <sub>4</sub>	\$2.40 <sup>1</sup> / <sub>2</sub>	.....	1.92	1.73	.....	2.14
1871..	1.92	2.66	2.98	1.65 <sup>1</sup> / <sub>2</sub>	2.71	1.83 <sup>1</sup> / <sub>2</sub>	1.92	2.63 <sup>1</sup> / <sub>2</sub>	.....	2.12 <sup>1</sup> / <sub>4</sub>	1.88	.....	2.23 <sup>1</sup> / <sub>4</sub>
1872..	2.18 <sup>3</sup> / <sub>4</sub>	2.64 <sup>1</sup> / <sub>4</sub>	2.91	1.68	3.05 <sup>1</sup> / <sub>2</sub>	1.86 <sup>3</sup> / <sub>4</sub>	2.03	2.67 <sup>1</sup> / <sub>2</sub>	.....	2.16 <sup>1</sup> / <sub>4</sub>	2.03 <sup>1</sup> / <sub>2</sub>	.....	2.32 <sup>1</sup> / <sub>2</sub>
1873..	2.23 <sup>3</sup> / <sub>4</sub>	2.61	2.75	1.62 <sup>1</sup> / <sub>2</sub>	2.66 <sup>1</sup> / <sub>4</sub>	1.58 <sup>1</sup> / <sub>4</sub>	1.95 <sup>1</sup> / <sub>4</sub>	2.58 <sup>3</sup> / <sub>4</sub>	.....	2.10 <sup>1</sup> / <sub>4</sub>	1.97	.....	2.20 <sup>3</sup> / <sub>4</sub>
1874..	2.09	2.53	2.73 <sup>3</sup> / <sub>4</sub>	1.64 <sup>1</sup> / <sub>2</sub>	2.91 <sup>1</sup> / <sub>4</sub>	1.60 <sup>1</sup> / <sub>2</sub>	2.02	2.69 <sup>1</sup> / <sub>4</sub>	.....	2.12 <sup>3</sup> / <sub>4</sub>	2.02	.....	2.23 <sup>3</sup> / <sub>4</sub>
1875..	2.08 <sup>3</sup> / <sub>4</sub>	2.41 <sup>3</sup> / <sub>4</sub>	2.33 <sup>1</sup> / <sub>4</sub>	1.63	3.00	1.59 <sup>3</sup> / <sub>4</sub>	2.00	2.40	.....	2.17	2.00	.....	2.16 <sup>1</sup> / <sub>4</sub>
1876..	2.17 <sup>3</sup> / <sub>4</sub>	2.23 <sup>3</sup> / <sub>4</sub>	2.21 <sup>3</sup> / <sub>4</sub>	1.74 <sup>1</sup> / <sub>2</sub>	2.99 <sup>1</sup> / <sub>4</sub>	1.63	1.99 <sup>1</sup> / <sub>2</sub>	1.99 <sup>1</sup> / <sub>2</sub>	.....	2.16 <sup>1</sup> / <sub>2</sub>	1.99 <sup>1</sup> / <sub>2</sub>	.....	2.11 <sup>1</sup> / <sub>2</sub>
1877..	2.28 <sup>1</sup> / <sub>2</sub>	2.12 <sup>1</sup> / <sub>2</sub>	2.30 <sup>3</sup> / <sub>4</sub>	2.00	3.13 <sup>1</sup> / <sub>4</sub>	1.76 <sup>1</sup> / <sub>2</sub>	2.13 <sup>3</sup> / <sub>4</sub>	1.88 <sup>1</sup> / <sub>4</sub>	.....	2.29 <sup>1</sup> / <sub>2</sub>	2.11 <sup>1</sup> / <sub>4</sub>	.....	2.20 <sup>3</sup> / <sub>4</sub>
1878..	2.24	1.96 <sup>3</sup> / <sub>4</sub>	2.39 <sup>1</sup> / <sub>4</sub>	2.05 <sup>1</sup> / <sub>4</sub>	3.04	1.85	2.40 <sup>3</sup> / <sub>2</sub>	1.97 <sup>1</sup> / <sub>4</sub>	.....	2.40 <sup>1</sup> / <sub>2</sub>	2.22	.....	2.25 <sup>1</sup> / <sub>2</sub>
1879..	2.28 <sup>3</sup> / <sub>4</sub>	2.17 <sup>3</sup> / <sub>4</sub>	2.35	1.87 <sup>1</sup> / <sub>2</sub>	3.08 <sup>1</sup> / <sub>2</sub>	1.93 <sup>3</sup> / <sub>4</sub>	2.45 <sup>1</sup> / <sub>2</sub>	2.00	.....	2.44 <sup>1</sup> / <sub>4</sub>	2.25	.....	2.28 <sup>1</sup> / <sub>2</sub>
1880..	2.17 <sup>1</sup> / <sub>4</sub>	2.18 <sup>1</sup> / <sub>2</sub>	2.65	1.87 <sup>1</sup> / <sub>2</sub>	2.87 <sup>1</sup> / <sub>2</sub>	1.93 <sup>3</sup> / <sub>4</sub>	2.46 <sup>1</sup> / <sub>4</sub>	2.00	.....	2.47 <sup>1</sup> / <sub>4</sub>	2.25	.....	2.28 <sup>3</sup> / <sub>4</sub>
1881..	2.27 <sup>1</sup> / <sub>2</sub>	2.53 <sup>1</sup> / <sub>4</sub>	2.42 <sup>1</sup> / <sub>2</sub>	1.90	2.87 <sup>1</sup> / <sub>2</sub>	2.22	2.42	2.50	.....	2.47 <sup>1</sup> / <sub>4</sub>	2.25	.....	2.38 <sup>3</sup> / <sub>4</sub>
1882..	2.25	2.54 <sup>3</sup> / <sub>4</sub>	2.52 <sup>1</sup> / <sub>2</sub>	1.76 <sup>3</sup> / <sub>4</sub>	2.87 <sup>1</sup> / <sub>2</sub>	2.23	2.46 <sup>3</sup> / <sub>4</sub>	2.50	.....	2.47 <sup>1</sup> / <sub>4</sub>	2.25	.....	2.38 <sup>3</sup> / <sub>4</sub>
1883..	2.23 <sup>1</sup> / <sub>2</sub>	2.65	2.37 <sup>1</sup> / <sub>2</sub>	1.68 <sup>1</sup> / <sub>4</sub>	2.55	2.23	2.42 <sup>1</sup> / <sub>2</sub>	2.75	.....	2.47 <sup>1</sup> / <sub>4</sub>	2.25	.....	2.36 <sup>1</sup> / <sub>4</sub>
1884..	2.25 <sup>3</sup> / <sub>4</sub>	2.65 <sup>1</sup> / <sub>4</sub>	2.27 <sup>1</sup> / <sub>2</sub>	1.68 <sup>1</sup> / <sub>4</sub>	2.87 <sup>1</sup> / <sub>2</sub>	2.28 <sup>1</sup> / <sub>2</sub>	2.45 <sup>3</sup> / <sub>4</sub>	2.50	.....	2.47 <sup>1</sup> / <sub>4</sub>	2.25	.....	2.37
1885..	2.27 <sup>3</sup> / <sub>4</sub>	2.56 <sup>1</sup> / <sub>2</sub>	2.35	1.60 <sup>1</sup> / <sub>4</sub>	3.06 <sup>1</sup> / <sub>4</sub>	2.29	2.48 <sup>1</sup> / <sub>4</sub>	2.50	.....	2.47 <sup>1</sup> / <sub>4</sub>	2.25	.....	2.38 <sup>1</sup> / <sub>2</sub>
1886..	2.27 <sup>3</sup> / <sub>4</sub>	2.65 <sup>1</sup> / <sub>4</sub>	2.47 <sup>1</sup> / <sub>2</sub>	1.87 <sup>1</sup> / <sub>2</sub>	2.75	2.29	2.51 <sup>1</sup> / <sub>2</sub>	2.25	.....	2.47 <sup>1</sup> / <sub>4</sub>	2.25	.....	2.38
1887..	2.26 <sup>3</sup> / <sub>4</sub>	2.55	2.42 <sup>1</sup> / <sub>2</sub>	1.69	2.53 <sup>1</sup> / <sub>4</sub>	2.28 <sup>1</sup> / <sub>2</sub>	2.52	2.37 <sup>1</sup> / <sub>2</sub>	.....	2.60 <sup>1</sup> / <sub>4</sub>	2.25	.....	2.35
1888..	2.25	2.42 <sup>1</sup> / <sub>2</sub>	2.40	1.71 <sup>1</sup> / <sub>2</sub>	2.66 <sup>3</sup> / <sub>4</sub>	2.29	2.51	2.83 <sup>3</sup> / <sub>4</sub>	.....	2.60 <sup>3</sup> / <sub>4</sub>	2.25	.....	2.39 <sup>1</sup> / <sub>2</sub>
1889..	2.28 <sup>3</sup> / <sub>4</sub>	2.53 <sup>1</sup> / <sub>2</sub>	2.37 <sup>1</sup> / <sub>2</sub>	1.71	2.62 <sup>1</sup> / <sub>2</sub>	2.27 <sup>3</sup> / <sub>4</sub>	2.49 <sup>3</sup> / <sub>4</sub>	2.87 <sup>1</sup> / <sub>2</sub>	.....	2.60 <sup>3</sup> / <sub>4</sub>	2.31 <sup>1</sup> / <sub>2</sub>	.....	2.41
1890..	2.26	2.55 <sup>3</sup> / <sub>4</sub>	2.35	1.74 <sup>1</sup> / <sub>4</sub>	2.83 <sup>1</sup> / <sub>4</sub>	2.24 <sup>1</sup> / <sub>4</sub>	2.44 <sup>3</sup> / <sub>4</sub>	2.87 <sup>1</sup> / <sub>2</sub>	.....	2.60 <sup>3</sup> / <sub>4</sub>	2.50	.....	2.44 <sup>1</sup> / <sub>4</sub>
1891..	2.27	2.42 <sup>3</sup> / <sub>4</sub>	2.37 <sup>1</sup> / <sub>2</sub>	1.73 <sup>3</sup> / <sub>4</sub>	2.75	2.23 <sup>3</sup> / <sub>4</sub>	2.50 <sup>3</sup> / <sub>4</sub>	2.87 <sup>1</sup> / <sub>2</sub>	.....	2.60 <sup>3</sup> / <sub>4</sub>	2.50	.....	2.43
1892..	2.28 <sup>1</sup> / <sub>2</sub>	2.51 <sup>1</sup> / <sub>2</sub>	2.35	1.79	2.91 <sup>3</sup> / <sub>4</sub>	2.17 <sup>1</sup> / <sub>4</sub>	2.49 <sup>1</sup> / <sub>2</sub>	3.12 <sup>1</sup> / <sub>2</sub>	.....	2.58 <sup>3</sup> / <sub>4</sub>	2.50	.....	2.47 <sup>1</sup> / <sub>4</sub>
1893..	2.25	2.49 <sup>1</sup> / <sub>2</sub>	2.37 <sup>1</sup> / <sub>2</sub>	1.69 <sup>1</sup> / <sub>4</sub>	2.54 <sup>1</sup> / <sub>2</sub>	2.14 <sup>1</sup> / <sub>4</sub>	2.57 <sup>3</sup> / <sub>4</sub>	3.00	.....	2.59 <sup>3</sup> / <sub>4</sub>	2.25	.....	2.39 <sup>1</sup> / <sub>4</sub>
1894..	2.26 <sup>3</sup> / <sub>4</sub>	2.50 <sup>1</sup> / <sub>4</sub>	2.32 <sup>1</sup> / <sub>2</sub>	1.66 <sup>3</sup> / <sub>4</sub>	2.34	2.14 <sup>1</sup> / <sub>4</sub>	2.55 <sup>3</sup> / <sub>4</sub>	2.75	.....	2.57 <sup>1</sup> / <sub>4</sub>	2.25	.....	2.33 <sup>3</sup> / <sub>4</sub>
1895..	2.27 <sup>1</sup> / <sub>2</sub>	2.50 <sup>1</sup> / <sub>4</sub>	2.32 <sup>1</sup> / <sub>2</sub>	1.54 <sup>1</sup> / <sub>4</sub>	2.40 <sup>3</sup> / <sub>4</sub>	2.11 <sup>1</sup> / <sub>2</sub>	2.53 <sup>3</sup> / <sub>4</sub>	2.62 <sup>1</sup> / <sub>2</sub>	.....	2.57 <sup>1</sup> / <sub>4</sub>	2.25	.....	2.31 <sup>1</sup> / <sub>2</sub>
1896..	2.26 <sup>3</sup> / <sub>4</sub>	2.52 <sup>1</sup> / <sub>4</sub>	2.30	1.54 <sup>1</sup> / <sub>4</sub>	2.37 <sup>1</sup> / <sub>2</sub>	2.50	2.53 <sup>1</sup> / <sub>2</sub>	2.75	.....	2.53	2.25	.....	2.35 <sup>3</sup> / <sub>4</sub>
1897..	2.22 <sup>1</sup> / <sub>4</sub>	2.53 <sup>1</sup> / <sub>2</sub>	2.32 <sup>1</sup> / <sub>2</sub>	1.53	2.25	2.42 <sup>1</sup> / <sub>4</sub>	2.53 <sup>1</sup> / <sub>2</sub>	2.75	.....	2.43 <sup>3</sup> / <sub>4</sub>	2.25	.....	2.32 <sup>1</sup> / <sub>2</sub>
1898..	2.22 <sup>1</sup> / <sub>4</sub>	2.62 <sup>3</sup> / <sub>4</sub>	2.32 <sup>1</sup> / <sub>2</sub>	1.52 <sup>1</sup> / <sub>2</sub>	2.12 <sup>1</sup> / <sub>2</sub>	2.44	2.44 <sup>3</sup> / <sub>2</sub>	2.50	.....	2.51	2.25	.....	2.29 <sup>3</sup> / <sub>4</sub>



TABLE I.—AVERAGE DAILY WAGES IN GOLD IN CERTAIN CITIES OF THE UNITED STATES, 1870 TO 1898—Continued.

the American Almanac for 1879, have been used, as follows: 1870, \$121.3; 1871, \$110.7; 1872, \$109.1; 1873, \$112.7; 1874, \$111.4; 1875, \$112.5; 1876, \$112.8; 1877, \$106.2, and 1878, \$101.4.]

CARPENTERS.

Year.	Balti- more.	Bos- ton.	Chi- cago.	Cin- cin- nati.	New Or- leans.	New York.	Phila- del- phia.	Pitts- burg and Alle- gheny.	Rich- mond.	St. Louis.	St. Paul.	San Fran- cisco.	Aver- age.
1870..	\$2.12	\$2.13 <sup>1</sup> / <sub>2</sub>	\$2.12	\$2.01	\$2.34 <sup>1</sup> / <sub>2</sub>	\$2.87 <sup>1</sup> / <sub>2</sub>	\$2.42	\$2.20	\$1.87 <sup>1</sup> / <sub>2</sub>	\$2.88 <sup>1</sup> / <sub>2</sub>	\$1.57 <sup>1</sup> / <sub>2</sub>	\$3.85 <sup>1</sup> / <sub>2</sub>	\$2.36 <sup>3</sup> / <sub>4</sub>
1871..	2.32	2.35	2.61	2.25	2.56 <sup>1</sup> / <sub>2</sub>	3.15	2.62 <sup>1</sup> / <sub>2</sub>	2.36 <sup>1</sup> / <sub>2</sub>	2.01 <sup>1</sup> / <sub>2</sub>	3.16 <sup>1</sup> / <sub>2</sub>	1.71 <sup>1</sup> / <sub>2</sub>	3.80	2.57 <sup>1</sup> / <sub>2</sub>
1872..	2.37	2.29 <sup>1</sup> / <sub>2</sub>	2.58	2.28	2.59 <sup>1</sup> / <sub>2</sub>	3.19	2.60 <sup>1</sup> / <sub>2</sub>	2.35	2.23	3.20	1.60 <sup>1</sup> / <sub>2</sub>	3.79	2.60
1873..	1.67 <sup>1</sup> / <sub>2</sub>	2.21 <sup>1</sup> / <sub>2</sub>	2.27 <sup>1</sup> / <sub>2</sub>	2.36	2.50 <sup>1</sup> / <sub>2</sub>	3.09	2.56 <sup>1</sup> / <sub>2</sub>	2.29	2.20 <sup>1</sup> / <sub>2</sub>	3.10 <sup>1</sup> / <sub>2</sub>	1.55 <sup>1</sup> / <sub>2</sub>	3.85	2.47 <sup>1</sup> / <sub>2</sub>
1874..	1.87	2.19 <sup>1</sup> / <sub>2</sub>	1.94 <sup>1</sup> / <sub>2</sub>	2.24	2.51 <sup>1</sup> / <sub>2</sub>	3.16	2.55 <sup>1</sup> / <sub>2</sub>	2.23 <sup>1</sup> / <sub>2</sub>	2.16 <sup>1</sup> / <sub>2</sub>	3.14 <sup>1</sup> / <sub>2</sub>	1.57 <sup>1</sup> / <sub>2</sub>	3.78	2.45
1875..	1.86	1.91 <sup>1</sup> / <sub>2</sub>	1.96 <sup>1</sup> / <sub>2</sub>	2.18 <sup>1</sup> / <sub>2</sub>	2.49	3.04 <sup>1</sup> / <sub>2</sub>	2.40 <sup>1</sup> / <sub>2</sub>	2.16 <sup>1</sup> / <sub>2</sub>	2.19	3.11	1.55 <sup>1</sup> / <sub>2</sub>	3.61	2.37 <sup>1</sup> / <sub>2</sub>
1876..	1.75 <sup>1</sup> / <sub>2</sub>	1.92 <sup>1</sup> / <sub>2</sub>	1.91	2.17	2.36 <sup>1</sup> / <sub>2</sub>	2.99	2.20 <sup>1</sup> / <sub>2</sub>	1.73	2.23 <sup>1</sup> / <sub>2</sub>	3.10 <sup>1</sup> / <sub>2</sub>	1.55 <sup>1</sup> / <sub>2</sub>	3.75	2.30
1877..	1.87	1.62	2.10 <sup>1</sup> / <sub>2</sub>	2.17	2.51 <sup>1</sup> / <sub>2</sub>	3.10	2.09 <sup>1</sup> / <sub>2</sub>	1.85 <sup>1</sup> / <sub>2</sub>	1.76 <sup>1</sup> / <sub>2</sub>	3.29 <sup>1</sup> / <sub>2</sub>	1.64 <sup>1</sup> / <sub>2</sub>	3.73	2.31 <sup>1</sup> / <sub>2</sub>
1878..	1.95 <sup>1</sup> / <sub>2</sub>	1.06 <sup>1</sup> / <sub>2</sub>	2.11	2.20	2.61 <sup>1</sup> / <sub>2</sub>	3.30	1.98 <sup>1</sup> / <sub>2</sub>	1.71 <sup>1</sup> / <sub>2</sub>	1.55 <sup>1</sup> / <sub>2</sub>	2.76 <sup>1</sup> / <sub>2</sub>	1.97 <sup>1</sup> / <sub>2</sub>	3.50	2.28
1879..	2.14 <sup>1</sup> / <sub>2</sub>	2.00	2.23 <sup>1</sup> / <sub>2</sub>	2.01 <sup>1</sup> / <sub>2</sub>	2.69	3.37 <sup>1</sup> / <sub>2</sub>	2.09 <sup>1</sup> / <sub>2</sub>	1.81 <sup>1</sup> / <sub>2</sub>	1.50	2.80	2.00	3.50	2.34 <sup>1</sup> / <sub>2</sub>
1880..	2.15 <sup>1</sup> / <sub>2</sub>	2.29 <sup>1</sup> / <sub>2</sub>	2.20	1.87	2.68 <sup>1</sup> / <sub>2</sub>	3.46 <sup>1</sup> / <sub>2</sub>	2.18	2.11 <sup>1</sup> / <sub>2</sub>	1.41 <sup>1</sup> / <sub>2</sub>	2.80	2.00	3.35	2.37 <sup>1</sup> / <sub>2</sub>
1881..	2.23	2.32	2.37 <sup>1</sup> / <sub>2</sub>	2.13	2.46	3.43	2.50	2.28 <sup>1</sup> / <sub>2</sub>	1.75	2.80	2.25	3.37 <sup>1</sup> / <sub>2</sub>	2.49 <sup>1</sup> / <sub>2</sub>
1882..	2.31	2.35 <sup>1</sup> / <sub>2</sub>	2.31	2.30 <sup>1</sup> / <sub>2</sub>	2.48	3.48 <sup>1</sup> / <sub>2</sub>	2.74 <sup>1</sup> / <sub>2</sub>	2.48	1.77	2.80	2.25	3.31 <sup>1</sup> / <sub>2</sub>	2.55
1883..	2.29	2.41 <sup>1</sup> / <sub>2</sub>	2.32	2.46	2.53	3.48	2.70 <sup>1</sup> / <sub>2</sub>	2.47 <sup>1</sup> / <sub>2</sub>	1.94 <sup>1</sup> / <sub>2</sub>	2.80	2.25	3.26	2.58 <sup>1</sup> / <sub>2</sub>
1884..	2.40	2.41 <sup>1</sup> / <sub>2</sub>	2.39	2.49	2.43 <sup>1</sup> / <sub>2</sub>	3.49	2.78 <sup>1</sup> / <sub>2</sub>	2.51 <sup>1</sup> / <sub>2</sub>	1.94 <sup>1</sup> / <sub>2</sub>	2.80	2.25	3.29 <sup>1</sup> / <sub>2</sub>	2.60
1885..	2.42 <sup>1</sup> / <sub>2</sub>	2.42	2.35	2.32 <sup>1</sup> / <sub>2</sub>	2.50	3.48	2.80 <sup>1</sup> / <sub>2</sub>	2.44 <sup>1</sup> / <sub>2</sub>	1.89 <sup>1</sup> / <sub>2</sub>	2.80	2.25	3.16	2.57 <sup>1</sup> / <sub>2</sub>
1886..	2.39	2.45 <sup>1</sup> / <sub>2</sub>	2.44	2.24 <sup>1</sup> / <sub>2</sub>	2.50	3.49	2.73 <sup>1</sup> / <sub>2</sub>	2.45 <sup>1</sup> / <sub>2</sub>	1.77	2.80	2.25	3.09	2.55 <sup>1</sup> / <sub>2</sub>
1887..	2.41	2.40 <sup>1</sup> / <sub>2</sub>	2.48	2.25 <sup>1</sup> / <sub>2</sub>	2.50	3.49	2.74 <sup>1</sup> / <sub>2</sub>	2.36 <sup>1</sup> / <sub>2</sub>	1.75	2.40	2.25	3.27	2.52 <sup>1</sup> / <sub>2</sub>
1888..	2.41	2.47 <sup>1</sup> / <sub>2</sub>	2.47 <sup>1</sup> / <sub>2</sub>	2.28 <sup>1</sup> / <sub>2</sub>	2.50	3.49	2.70 <sup>1</sup> / <sub>2</sub>	2.49 <sup>1</sup> / <sub>2</sub>	1.96 <sup>1</sup> / <sub>2</sub>	2.40	2.25	3.26	2.56
1889..	2.40	2.44 <sup>1</sup> / <sub>2</sub>	2.32	2.20	2.46 <sup>1</sup> / <sub>2</sub>	3.49	2.75 <sup>1</sup> / <sub>2</sub>	2.58 <sup>1</sup> / <sub>2</sub>	1.83 <sup>1</sup> / <sub>2</sub>	2.40	2.25	3.32	2.54
1890..	2.43	2.52	2.29 <sup>1</sup> / <sub>2</sub>	2.01 <sup>1</sup> / <sub>2</sub>	2.50 <sup>1</sup> / <sub>2</sub>	3.48	2.74 <sup>1</sup> / <sub>2</sub>	2.62	2.19	2.80	2.25	3.24	2.59 <sup>1</sup> / <sub>2</sub>
1891..	2.41	2.52	2.58	2.10	2.32 <sup>1</sup> / <sub>2</sub>	3.49	2.83 <sup>1</sup> / <sub>2</sub>	2.64 <sup>1</sup> / <sub>2</sub>	2.22	3.18	2.17 <sup>1</sup> / <sub>2</sub>	3.27	2.64 <sup>1</sup> / <sub>2</sub>
1892..	2.42 <sup>1</sup> / <sub>2</sub>	2.48 <sup>1</sup> / <sub>2</sub>	2.59	2.19 <sup>1</sup> / <sub>2</sub>	2.32	3.49	2.83 <sup>1</sup> / <sub>2</sub>	2.65	2.15 <sup>1</sup> / <sub>2</sub>	3.20	2.16 <sup>1</sup> / <sub>2</sub>	3.26	2.65
1893..	2.41	2.52	2.96	2.30	2.27 <sup>1</sup> / <sub>2</sub>	3.49	2.78 <sup>1</sup> / <sub>2</sub>	2.60 <sup>1</sup> / <sub>2</sub>	2.17	3.20	2.00	3.29	2.67
1894..	2.43	2.47 <sup>1</sup> / <sub>2</sub>	2.94	1.90 <sup>1</sup> / <sub>2</sub>	2.32	3.49	2.79	2.37	2.20	3.20	2.00	3.27	2.62 <sup>1</sup> / <sub>2</sub>
1895..	2.39	2.47 <sup>1</sup> / <sub>2</sub>	2.69	1.99	2.32 <sup>1</sup> / <sub>2</sub>	3.49	2.82	2.31	2.17	2.80	2.00	3.20	2.55 <sup>1</sup> / <sub>2</sub>
1896..	2.41	2.46	2.54	1.87	2.31	3.49	2.77 <sup>1</sup> / <sub>2</sub>	2.33 <sup>1</sup> / <sub>2</sub>	2.02	2.80	2.00	3.21	2.52
1897..	2.43 <sup>1</sup> / <sub>2</sub>	2.54	2.67 <sup>1</sup> / <sub>2</sub>	1.94	2.32 <sup>1</sup> / <sub>2</sub>	3.49	2.77 <sup>1</sup> / <sub>2</sub>	2.36	2.17	2.80	2.14	3.15	2.56 <sup>1</sup> / <sub>2</sub>
1898..	2.41	2.54	2.43	1.85	2.33	3.49	2.73 <sup>1</sup> / <sub>2</sub>	2.27 <sup>1</sup> / <sub>2</sub>	2.17	2.80	2.14	3.13	2.52 <sup>1</sup> / <sub>2</sub>

COMPOSITORS.

1870..	2.47 <sup>1</sup> / <sub>2</sub>	2.26 <sup>1</sup> / <sub>2</sub>	2.88 <sup>1</sup> / <sub>2</sub>	2.78	2.47 <sup>1</sup> / <sub>2</sub>	2.53	2.58	.....	2.74 <sup>1</sup> / <sub>2</sub>	2.36 <sup>1</sup> / <sub>2</sub>	1.23 <sup>1</sup> / <sub>2</sub>	3.41 <sup>1</sup> / <sub>2</sub>	2.52 <sup>1</sup> / <sub>2</sub>
1871..	2.71	2.51 <sup>1</sup> / <sub>2</sub>	3.16	3.27	2.71	2.76 <sup>1</sup> / <sub>2</sub>	2.76	.....	3.01	2.57 <sup>1</sup> / <sub>2</sub>	1.35 <sup>1</sup> / <sub>2</sub>	3.45	2.75 <sup>1</sup> / <sub>2</sub>
1872..	2.75	2.56 <sup>1</sup> / <sub>2</sub>	3.20	3.29 <sup>1</sup> / <sub>2</sub>	2.75	2.80	2.75	.....	3.05	2.62 <sup>1</sup> / <sub>2</sub>	1.37 <sup>1</sup> / <sub>2</sub>	3.36	2.77 <sup>1</sup> / <sub>2</sub>
1873..	2.66 <sup>1</sup> / <sub>2</sub>	2.44	3.10 <sup>1</sup> / <sub>2</sub>	3.23 <sup>1</sup> / <sub>2</sub>	2.66	2.72 <sup>1</sup> / <sub>2</sub>	2.66	.....	2.98	2.54	1.48	3.45 <sup>1</sup> / <sub>2</sub>	2.72
1874..	2.69	2.56	3.14	3.20 <sup>1</sup> / <sub>2</sub>	2.69	2.59	2.71	.....	2.99	2.57 <sup>1</sup> / <sub>2</sub>	1.49 <sup>1</sup> / <sub>2</sub>	3.48	2.74
1875..	2.66	2.50 <sup>1</sup> / <sub>2</sub>	3.11	3.30	2.66	2.58	2.58	.....	2.96	2.53	1.48	3.54 <sup>1</sup> / <sub>2</sub>	2.71 <sup>1</sup> / <sub>2</sub>
1876..	2.66	2.40	3.10 <sup>1</sup> / <sub>2</sub>	3.25	2.66	2.80	2.43 <sup>1</sup> / <sub>2</sub>	.....	2.38 <sup>1</sup> / <sub>2</sub>	2.55	1.47	3.41 <sup>1</sup> / <sub>2</sub>	2.64 <sup>1</sup> / <sub>2</sub>
1877..	2.54	2.58 <sup>1</sup> / <sub>2</sub>	3.29	3.36	2.82	2.84	2.48	.....	2.51	2.69	1.64	3.35	2.74
1878..	2.66	2.62	2.95	3.15	2.95	2.85	2.41	.....	2.63	2.81	1.72	3.40	2.74 <sup>1</sup> / <sub>2</sub>
1879..	2.70	2.52 <sup>1</sup> / <sub>2</sub>	3.00	3.25	3.00	2.97	2.27	.....	2.68	2.89	1.75	3.37	2.76 <sup>1</sup> / <sub>2</sub>
1880..	2.70	2.57 <sup>1</sup> / <sub>2</sub>	3.00	3.31	3.00	2.98	2.33	.....	2.66	2.92	1.75	3.28	2.77 <sup>1</sup> / <sub>2</sub>
1881..	2.70	2.61	3.00	3.18 <sup>1</sup> / <sub>2</sub>	3.00	2.95	2.52	.....	2.66	2.93	1.75	3.28	2.78 <sup>1</sup> / <sub>2</sub>
1882..	2.70	2.75 <sup>1</sup> / <sub>2</sub>	3.00	3.21 <sup>1</sup> / <sub>2</sub>	3.00	2.74	2.82	.....	2.66	2.92	1.75	3.33	2.81
1883..	2.70	2.84 <sup>1</sup> / <sub>2</sub>	3.00	3.19 <sup>1</sup> / <sub>2</sub>	3.00	2.74	2.76	.....	2.66	2.92	1.75	3.27	2.80 <sup>1</sup> / <sub>2</sub>
1884..	2.70	2.70	3.00	3.20 <sup>1</sup> / <sub>2</sub>	3.00	3.02	2.79	.....	2.66	2.92	1.75	3.31	2.82 <sup>1</sup> / <sub>2</sub>
1885..	2.70	2.70 <sup>1</sup> / <sub>2</sub>	3.00	3.13 <sup>1</sup> / <sub>2</sub>	3.00	3.03	2.71	.....	2.66	2.92	1.75	3.49	2.82 <sup>1</sup> / <sub>2</sub>
1886..	2.70	2.71 <sup>1</sup> / <sub>2</sub>	3.00	3.11 <sup>1</sup> / <sub>2</sub>	3.00	3.02	2.61	.....	2.66	2.89	1.75	3.41 <sup>1</sup> / <sub>2</sub>	2.80 <sup>1</sup> / <sub>2</sub>
1887..	2.70	2.69 <sup>1</sup> / <sub>2</sub>	3.00	3.12 <sup>1</sup> / <sub>2</sub>	3.00	3.02	2.68	.....	2.66	2.88	1.75	3.44	2.81 <sup>1</sup> / <sub>2</sub>
1888..	2.70	2.67 <sup>1</sup> / <sub>2</sub>	3.00	3.08	3.00	3.02	2.65	.....	2.66	2.88	1.75	3.43	2.80 <sup>1</sup> / <sub>2</sub>
1889..	2.70	2.68	3.00	3.10 <sup>1</sup> / <sub>2</sub>	3.00	3.03	2.56	.....	2.66	2.88	1.75	3.41	2.80
1890..	2.70	2.65 <sup>1</sup> / <sub>2</sub>	3.00	3.15 <sup>1</sup> / <sub>2</sub>	3.00	3.05	2.50	.....	2.66	2.88	1.78 <sup>1</sup> / <sub>2</sub>	3.37	2.79 <sup>1</sup> / <sub>2</sub>
1891..	2.70	2.73 <sup>1</sup> / <sub>2</sub>	3.00	3.09	3.00	3.08	2.21 <sup>1</sup> / <sub>2</sub>	.....	2.66	2.88	1.78	3.24	2.76 <sup>1</sup> / <sub>2</sub>
1892..	2.70	2.67 <sup>1</sup> / <sub>2</sub>	3.00	3.09	3.00	3.09	2.30	.....	2.66	2.88	1.85 <sup>1</sup> / <sub>2</sub>	3.32	2.78 <sup>1</sup> / <sub>2</sub>
1893..	2.70	2.66 <sup>1</sup> / <sub>2</sub>	3.00	3.11	3.00	3.10	2.34	.....	2.66	2.87	1.85	3.23	2.77 <sup>1</sup> / <sub>2</sub>
1894..	2.70	2.64 <sup>1</sup> / <sub>2</sub>	3.00	3.08	3.00	3.09	2.26	.....	2.66	2.89	2.09	3.31	2.79 <sup>1</sup> / <sub>2</sub>
1895..	2.70	2.60 <sup>1</sup> / <sub>2</sub>	3.00	3.09	3.00	3.07	2.35	.....	2.66	2.90	2.25	3.26	2.81
1896..	2.70	2.63 <sup>1</sup> / <sub>2</sub>	3.00	3.07	2.78	3.14	2.31	.....	2.66	2.91	2.50	3.35 <sup>1</sup> / <sub>2</sub>	2.82 <sup>1</sup> / <sub>2</sub>
1897..	2.70	2.63 <sup>1</sup> / <sub>2</sub>	3.00	3.08	2.73	3.11	2.18	.....	2.66	2.92	2.50	3.25	2.80
1898..	2.70	2.62 <sup>1</sup> / <sub>2</sub>	3.00	3.07	2.73 <sup>1</sup> / <sub>2</sub>	3.12	2.33	.....	2.66	2.92	2.50	3.28	2.81 <sup>1</sup> / <sub>2</sub>



TABLE I.—AVERAGE DAILY WAGES IN GOLD IN CERTAIN CITIES OF THE UNITED STATES, 1870 TO 1898—Continued.

[The wages for the years 1870 to 1878, inclusive, except in the case of San Francisco, were reported in currency. In converting wages in currency into wages in gold the value of \$100 gold in currency for January of each year from 1870 to 1877 and the average value for the entire year 1878, as given in

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Year.	Balti- more.	Bos- ton.	Chi- cago.	Cin- cin- nati.	New Or- leans.	New York.	Phila- del- phia.	Pitts- burg and Alle- gheny.	Rich- mond.	St. Louis.	St. Paul.	San Fran- cisco.	Aver- age.
1870		\$3.17		\$3.95	\$2.71				\$2.53			\$1.79 <sup>1</sup> / <sub>4</sub>	\$3.43
1871		3.47 <sup>1</sup> / <sub>4</sub>		4.33	2.97				2.77			4.33 <sup>1</sup> / <sub>2</sub>	3.57 <sup>1</sup> / <sub>2</sub>
1872		3.52 <sup>1</sup> / <sub>2</sub>		4.39 <sup>1</sup> / <sub>4</sub>	3.01 <sup>1</sup> / <sub>4</sub>				2.81			4.31 <sup>3</sup> / <sub>4</sub>	3.61 <sup>1</sup> / <sub>4</sub>
1873		3.41 <sup>1</sup> / <sub>4</sub>		4.25 <sup>1</sup> / <sub>4</sub>	2.91 <sup>3</sup> / <sub>4</sub>				2.72 <sup>1</sup> / <sub>4</sub>			4.32	3.52 <sup>1</sup> / <sub>2</sub>
1874		3.10 <sup>3</sup> / <sub>4</sub>		4.30 <sup>1</sup> / <sub>4</sub>	2.95				2.75 <sup>1</sup> / <sub>4</sub>			4.34	3.49
1875		3.07 <sup>3</sup> / <sub>4</sub>		3.75	2.92 <sup>1</sup> / <sub>4</sub>				2.72 <sup>3</sup> / <sub>4</sub>			4.33 <sup>1</sup> / <sub>2</sub>	3.361 <sup>1</sup> / <sub>4</sub>
1876		3.07		3.40	2.91 <sup>1</sup> / <sub>2</sub>				2.72			4.33 <sup>3</sup> / <sub>4</sub>	3.28 <sup>3</sup> / <sub>4</sub>
1877		3.62		3.61	3.091 <sup>1</sup> / <sub>2</sub>				2.88 <sup>3</sup> / <sub>4</sub>			4.33 <sup>1</sup> / <sub>2</sub>	3.51
1878		3.79 <sup>1</sup> / <sub>4</sub>		3.78 <sup>1</sup> / <sub>4</sub>	3.24 <sup>1</sup> / <sub>2</sub>				3.02 <sup>3</sup> / <sub>4</sub>			4.29 <sup>3</sup> / <sub>4</sub>	3.62 <sup>3</sup> / <sub>4</sub>
1879		3.84 <sup>1</sup> / <sub>2</sub>		3.83 <sup>1</sup> / <sub>2</sub>	3.28 <sup>3</sup> / <sub>4</sub>				3.06 <sup>3</sup> / <sub>4</sub>			4.29 <sup>1</sup> / <sub>2</sub>	3.66 <sup>3</sup> / <sub>4</sub>
1880		3.84 <sup>1</sup> / <sub>2</sub>		3.78 <sup>1</sup> / <sub>2</sub>	3.28 <sup>3</sup> / <sub>4</sub>				3.06 <sup>3</sup> / <sub>4</sub>			4.30 <sup>1</sup> / <sub>2</sub>	3.65 <sup>3</sup> / <sub>4</sub>
1881		3.84 <sup>1</sup> / <sub>2</sub>		3.78 <sup>1</sup> / <sub>2</sub>	3.28 <sup>3</sup> / <sub>4</sub>				3.06 <sup>3</sup> / <sub>4</sub>			4.29 <sup>3</sup> / <sub>4</sub>	3.65 <sup>1</sup> / <sub>2</sub>
1882		3.84 <sup>1</sup> / <sub>2</sub>		3.79 <sup>1</sup> / <sub>4</sub>	3.28 <sup>3</sup> / <sub>4</sub>				3.06 <sup>3</sup> / <sub>4</sub>			4.26 <sup>3</sup> / <sub>4</sub>	3.65 <sup>1</sup> / <sub>4</sub>
1883		3.84 <sup>1</sup> / <sub>2</sub>		3.91	3.28 <sup>3</sup> / <sub>4</sub>				3.06 <sup>3</sup> / <sub>4</sub>			4.28 <sup>1</sup> / <sub>2</sub>	3.68
1884		3.84 <sup>1</sup> / <sub>2</sub>		3.91	3.28 <sup>3</sup> / <sub>4</sub>				3.06 <sup>3</sup> / <sub>4</sub>			4.30 <sup>1</sup> / <sub>2</sub>	3.68 <sup>1</sup> / <sub>4</sub>
1885		3.84 <sup>1</sup> / <sub>2</sub>		4.10 <sup>1</sup> / <sub>2</sub>	3.28 <sup>3</sup> / <sub>4</sub>				3.06 <sup>3</sup> / <sub>4</sub>			4.30 <sup>1</sup> / <sub>2</sub>	3.72 <sup>1</sup> / <sub>4</sub>
1886		3.84 <sup>1</sup> / <sub>2</sub>		4.10 <sup>1</sup> / <sub>2</sub>	3.28 <sup>3</sup> / <sub>4</sub>				3.06 <sup>3</sup> / <sub>4</sub>			4.30 <sup>1</sup> / <sub>4</sub>	3.72 <sup>1</sup> / <sub>4</sub>
1887		3.84 <sup>1</sup> / <sub>2</sub>		4.20 <sup>1</sup> / <sub>2</sub>	3.28 <sup>3</sup> / <sub>4</sub>				3.06 <sup>3</sup> / <sub>4</sub>			4.30 <sup>1</sup> / <sub>4</sub>	3.74 <sup>1</sup> / <sub>4</sub>
1888		3.84 <sup>1</sup> / <sub>2</sub>		4.20 <sup>1</sup> / <sub>2</sub>	3.28 <sup>3</sup> / <sub>4</sub>				3.06			4.30 <sup>1</sup> / <sub>2</sub>	3.74
1889		3.84 <sup>1</sup> / <sub>2</sub>		4.20 <sup>1</sup> / <sub>2</sub>	3.28 <sup>3</sup> / <sub>4</sub>				3.00			4.31 <sup>1</sup> / <sub>4</sub>	3.73
1890		3.84 <sup>1</sup> / <sub>2</sub>		4.21	3.43 <sup>1</sup> / <sub>2</sub>				3.00			4.31	3.76
1891		3.84 <sup>1</sup> / <sub>2</sub>		4.30 <sup>3</sup> / <sub>4</sub>	4.11				3.16			4.51 <sup>3</sup> / <sub>4</sub>	3.98 <sup>3</sup> / <sub>4</sub>
1892		3.84 <sup>1</sup> / <sub>2</sub>		4.12	4.27 <sup>1</sup> / <sub>4</sub>				3.02			4.51 <sup>1</sup> / <sub>2</sub>	3.95 <sup>1</sup> / <sub>2</sub>
1893		3.84 <sup>1</sup> / <sub>2</sub>		4.12	4.97				3.14			4.50 <sup>1</sup> / <sub>2</sub>	4.11 <sup>1</sup> / <sub>2</sub>
1894		3.84 <sup>1</sup> / <sub>2</sub>		4.02 <sup>1</sup> / <sub>2</sub>	3.96 <sup>3</sup> / <sub>4</sub>				3.25			4.49	3.91 <sup>1</sup> / <sub>2</sub>
1895		3.84 <sup>1</sup> / <sub>2</sub>		4.26 <sup>3</sup> / <sub>4</sub>	4.57 <sup>3</sup> / <sub>4</sub>				3.12			4.48	4.05 <sup>3</sup> / <sub>4</sub>
1896		3.84 <sup>1</sup> / <sub>2</sub>		4.14	4.91 <sup>3</sup> / <sub>4</sub>				3.05			4.46	4.08 <sup>1</sup> / <sub>2</sub>
1897		3.84 <sup>1</sup> / <sub>2</sub>		4.10 <sup>1</sup> / <sub>2</sub>	5.04				3.05			4.44 <sup>1</sup> / <sub>4</sub>	4.09 <sup>3</sup> / <sub>4</sub>
1898		3.84 <sup>1</sup> / <sub>2</sub>		4.18 <sup>3</sup> / <sub>4</sub>	4.64 <sup>3</sup> / <sub>4</sub>				3.05			4.43 <sup>3</sup> / <sub>4</sub>	4.03 <sup>1</sup> / <sub>4</sub>

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1870	3.17		2.51 <sup>3</sup> / <sub>4</sub>	3.11 <sup>1</sup> / <sub>2</sub>			\$2.86	2.91 <sup>1</sup> / <sub>4</sub>				1.79 <sup>1</sup> / <sub>4</sub>	3.22 <sup>3</sup> / <sub>4</sub>
1871	3.47 <sup>1</sup> / <sub>4</sub>		2.88 <sup>1</sup> / <sub>2</sub>	3.41 <sup>1</sup> / <sub>2</sub>			3.30 <sup>3</sup> / <sub>4</sub>	3.19				4.60 <sup>1</sup> / <sub>4</sub>	3.48
1872	3.52 <sup>1</sup> / <sub>2</sub>		3.44 <sup>1</sup> / <sub>2</sub>	3.46 <sup>1</sup> / <sub>2</sub>			3.56	3.23 <sup>3</sup> / <sub>4</sub>				4.58 <sup>1</sup> / <sub>2</sub>	3.63 <sup>3</sup> / <sub>4</sub>
1873	3.41 <sup>1</sup> / <sub>4</sub>		3.70	3.35 <sup>1</sup> / <sub>2</sub>			3.64	3.13 <sup>1</sup> / <sub>2</sub>				1.59	3.64
1874	3.10 <sup>3</sup> / <sub>4</sub>		3.74 <sup>1</sup> / <sub>4</sub>	3.39 <sup>1</sup> / <sub>4</sub>			3.20 <sup>3</sup> / <sub>4</sub>	3.17				4.61	3.53 <sup>3</sup> / <sub>4</sub>
1875	3.07 <sup>3</sup> / <sub>4</sub>		3.46	3.36			3.31 <sup>1</sup> / <sub>4</sub>	3.14				4.60 <sup>1</sup> / <sub>4</sub>	3.49 <sup>1</sup> / <sub>4</sub>
1876	3.07		3.56 <sup>3</sup> / <sub>4</sub>	3.35			3.44	3.13 <sup>1</sup> / <sub>4</sub>				4.60 <sup>1</sup> / <sub>4</sub>	3.52 <sup>3</sup> / <sub>4</sub>
1877	3.62		3.79	3.56			3.65 <sup>1</sup> / <sub>2</sub>	3.32 <sup>3</sup> / <sub>4</sub>				4.60 <sup>1</sup> / <sub>4</sub>	3.76
1878	3.79 <sup>1</sup> / <sub>4</sub>		3.97	3.72 <sup>3</sup> / <sub>4</sub>			3.39 <sup>3</sup> / <sub>4</sub>	3.48 <sup>1</sup> / <sub>4</sub>				4.57 <sup>3</sup> / <sub>4</sub>	3.82 <sup>1</sup> / <sub>2</sub>
1879	3.84 <sup>1</sup> / <sub>2</sub>		4.02 <sup>1</sup> / <sub>2</sub>	3.78			3.40 <sup>3</sup> / <sub>4</sub>	3.53 <sup>1</sup> / <sub>4</sub>				4.57 <sup>1</sup> / <sub>2</sub>	3.86
1880	3.84 <sup>1</sup> / <sub>2</sub>		4.02 <sup>1</sup> / <sub>2</sub>	3.78			3.73	3.53 <sup>1</sup> / <sub>4</sub>				4.57 <sup>1</sup> / <sub>2</sub>	3.91 <sup>1</sup> / <sub>2</sub>
1881	3.84 <sup>1</sup> / <sub>2</sub>		4.02 <sup>1</sup> / <sub>2</sub>	3.78			3.88 <sup>1</sup> / <sub>4</sub>	3.53 <sup>1</sup> / <sub>4</sub>				4.56 <sup>1</sup> / <sub>4</sub>	3.93 <sup>3</sup> / <sub>4</sub>
1882	3.84 <sup>1</sup> / <sub>2</sub>		4.16	3.78			3.56 <sup>1</sup> / <sub>2</sub>	3.53 <sup>1</sup> / <sub>4</sub>				4.53 <sup>1</sup> / <sub>2</sub>	3.90 <sup>1</sup> / <sub>4</sub>
1883	3.84 <sup>1</sup> / <sub>2</sub>		4.02 <sup>1</sup> / <sub>2</sub>	3.78			3.58 <sup>3</sup> / <sub>4</sub>	3.53 <sup>1</sup> / <sub>4</sub>				4.55 <sup>1</sup> / <sub>2</sub>	3.88 <sup>3</sup> / <sub>4</sub>
1884	3.84 <sup>1</sup> / <sub>2</sub>		4.02 <sup>1</sup> / <sub>2</sub>	3.78			3.65	3.53 <sup>1</sup> / <sub>4</sub>				4.57 <sup>1</sup> / <sub>2</sub>	3.90 <sup>1</sup> / <sub>4</sub>
1885	3.84 <sup>1</sup> / <sub>2</sub>		4.29 <sup>1</sup> / <sub>2</sub>	3.78			3.65 <sup>1</sup> / <sub>2</sub>	3.53 <sup>1</sup> / <sub>4</sub>				4.57 <sup>1</sup> / <sub>4</sub>	3.94 <sup>3</sup> / <sub>4</sub>
1886	3.84 <sup>1</sup> / <sub>2</sub>		4.29 <sup>1</sup> / <sub>2</sub>	3.78			3.60 <sup>1</sup> / <sub>2</sub>	3.53 <sup>1</sup> / <sub>4</sub>				4.57	3.93 <sup>3</sup> / <sub>4</sub>
1887	3.84 <sup>1</sup> / <sub>2</sub>		4.29 <sup>1</sup> / <sub>2</sub>	3.78			3.59	3.53 <sup>1</sup> / <sub>4</sub>				4.57 <sup>1</sup> / <sub>4</sub>	3.93 <sup>1</sup> / <sub>2</sub>
1888	3.84 <sup>1</sup> / <sub>2</sub>		4.29 <sup>1</sup> / <sub>2</sub>	3.78			3.72 <sup>1</sup> / <sub>4</sub>	3.78				4.57 <sup>1</sup> / <sub>4</sub>	4.00
1889	3.84 <sup>1</sup> / <sub>2</sub>		4.42 <sup>3</sup> / <sub>4</sub>	3.78			3.70 <sup>3</sup> / <sub>4</sub>	3.78				4.58	4.02
1890	3.84 <sup>1</sup> / <sub>2</sub>		4.42 <sup>3</sup> / <sub>4</sub>	3.78			3.77	3.78				4.57 <sup>3</sup> / <sub>4</sub>	4.03
1891	3.84 <sup>1</sup> / <sub>2</sub>		4.42 <sup>3</sup> / <sub>4</sub>	4.29 <sup>1</sup> / <sub>4</sub>			3.65 <sup>3</sup> / <sub>4</sub>	3.88				4.59	4.11 <sup>1</sup> / <sub>2</sub>
1892	3.84 <sup>1</sup> / <sub>2</sub>		4.69 <sup>3</sup> / <sub>4</sub>	5.24			5.22 <sup>1</sup> / <sub>4</sub>	4.00				4.59	4.00
1893	3.84 <sup>1</sup> / <sub>2</sub>		4.96 <sup>1</sup> / <sub>2</sub>	5.15 <sup>1</sup> / <sub>2</sub>			5.08 <sup>1</sup> / <sub>2</sub>	4.14				4.58 <sup>1</sup> / <sub>2</sub>	4.63
1894	3.84 <sup>1</sup> / <sub>2</sub>		4.22 <sup>3</sup> / <sub>4</sub>	4.23 <sup>3</sup> / <sub>4</sub>			5.21 <sup>1</sup> / <sub>4</sub>	4.04				4.57 <sup>3</sup> / <sub>4</sub>	4.35 <sup>3</sup> / <sub>4</sub>
1895	3.84 <sup>1</sup> / <sub>2</sub>		3.98 <sup>1</sup> / <sub>2</sub>	5.51 <sup>1</sup> / <sub>4</sub>			5.08 <sup>1</sup> / <sub>4</sub>	4.09				4.11 <sup>1</sup> / <sub>4</sub>	4.44
1896	3.84 <sup>1</sup> / <sub>2</sub>		4.22 <sup>3</sup> / <sub>4</sub>	5.98 <sup>1</sup> / <sub>4</sub>			5.07 <sup>1</sup> / <sub>4</sub>	4.13				4.11 <sup>1</sup> / <sub>4</sub>	4.56 <sup>1</sup> / <sub>4</sub>
1897	3.84 <sup>1</sup> / <sub>2</sub>		4.22 <sup>3</sup> / <sub>4</sub>	5.43			5.14 <sup>3</sup> / <sub>4</sub>	4.13				4.10 <sup>3</sup> / <sub>4</sub>	4.48 <sup>1</sup> / <sub>4</sub>
1898	3.84 <sup>1</sup> / <sub>2</sub>		4.22 <sup>3</sup> / <sub>4</sub>	4.95			5.30	4.13				4.10 <sup>3</sup> / <sub>4</sub>	4.42 <sup>3</sup> / <sub>4</sub>



TABLE I.—AVERAGE DAILY WAGES IN GOLD IN CERTAIN CITIES OF THE UNITED STATES, 1870 TO 1898—Continued.

the American Almanac for 1879, have been used, as follows: 1870, \$121.3; 1871, \$110.7; 1872, \$109.1; 1873, \$112.7; 1874, \$111.4; 1875, \$112.5; 1876, \$112.3; 1877, \$106.2. and 1878, \$101.4.]

## FIREMEN, RAILROAD.

Year.	Balti- more.	Bos- ton.	Chi- cago.	Cin- cin- nati.	New Or- leans.	New York.	Phila- del- phia.	Pitts- burg and Alle- gheny.	Rich- mond.	St. Louis.	St. Paul.	San Fran- cisco.	Aver- age.
1870..		\$1.65		\$1.50	\$1.76 $\frac{1}{2}$			\$1.56 $\frac{3}{4}$	\$0.94 $\frac{3}{4}$			\$3.06 $\frac{3}{4}$	\$1.75
1871..		1.80 $\frac{3}{4}$		1.64 $\frac{1}{2}$	1.93			1.90 $\frac{1}{2}$	1.04			2.61	1.82 $\frac{1}{4}$
1872..		1.83 $\frac{1}{4}$		1.93 $\frac{3}{4}$	1.96			1.91	1.05 $\frac{1}{2}$			2.59 $\frac{1}{2}$	1.88 $\frac{1}{4}$
1873..		1.77 $\frac{1}{2}$		1.72	1.89 $\frac{3}{4}$			1.86	1.02			2.59 $\frac{1}{2}$	1.81 $\frac{1}{4}$
1874..		1.61 $\frac{1}{2}$		1.89 $\frac{3}{4}$	1.92			1.65 $\frac{3}{4}$	1.03 $\frac{1}{2}$			2.61 $\frac{1}{2}$	1.79
1875..		1.60		1.75	1.90			1.65	1.02			2.61	1.75 $\frac{1}{2}$
1876..		1.59 $\frac{1}{2}$		1.80 $\frac{1}{2}$	1.89 $\frac{1}{2}$			1.65 $\frac{1}{2}$	1.02			2.61	1.76 $\frac{1}{2}$
1877..		1.88 $\frac{1}{4}$		1.91 $\frac{1}{2}$	2.01 $\frac{1}{2}$			1.76 $\frac{1}{2}$	1.08 $\frac{1}{2}$			2.61	1.87 $\frac{3}{4}$
1878..		1.97 $\frac{1}{4}$		2.00 $\frac{3}{4}$	2.10 $\frac{3}{4}$			1.83	1.13 $\frac{1}{2}$			2.58 $\frac{1}{2}$	1.94
1879..		2.00		2.09 $\frac{1}{2}$	2.13 $\frac{1}{2}$			1.90	1.15			2.58 $\frac{1}{2}$	1.96 $\frac{3}{4}$
1880..		2.00		2.03 $\frac{1}{2}$	2.12 $\frac{3}{4}$			1.80 $\frac{3}{4}$	1.15			2.58	1.95 $\frac{1}{2}$
1881..		2.00		2.03 $\frac{1}{2}$	2.13 $\frac{3}{4}$			1.78 $\frac{3}{4}$	1.15			2.56 $\frac{3}{4}$	1.94 $\frac{3}{4}$
1882..		2.00		2.10 $\frac{1}{2}$	2.13 $\frac{1}{2}$			1.85 $\frac{1}{2}$	1.15			2.54 $\frac{1}{2}$	1.96 $\frac{1}{2}$
1883..		2.00		1.95 $\frac{1}{2}$	2.13 $\frac{1}{2}$			1.84 $\frac{1}{2}$	1.15			2.56	1.94 $\frac{1}{2}$
1884..		2.00		1.95 $\frac{1}{2}$	2.13 $\frac{1}{2}$			1.81	1.15			2.58	1.94
1885..		2.00		2.08 $\frac{1}{2}$	2.13 $\frac{1}{2}$			1.80 $\frac{1}{4}$	1.15			2.57 $\frac{1}{2}$	1.96
1886..		2.00		2.08 $\frac{1}{2}$	2.13 $\frac{1}{2}$			1.80	1.15			2.57 $\frac{1}{2}$	1.95 $\frac{3}{4}$
1887..		2.00		2.04 $\frac{1}{2}$	2.13 $\frac{1}{2}$			1.83 $\frac{1}{2}$	1.15			2.57 $\frac{1}{2}$	1.95 $\frac{3}{4}$
1888..		2.60		2.03 $\frac{1}{2}$	2.13 $\frac{1}{2}$			1.84 $\frac{1}{2}$	1.16			2.58	1.96
1889..		2.00		2.33 $\frac{1}{2}$	2.13 $\frac{1}{2}$			1.86 $\frac{1}{2}$	1.16			2.58 $\frac{1}{2}$	2.01 $\frac{1}{2}$
1890..		2.00		2.33 $\frac{1}{2}$	2.13 $\frac{1}{2}$			1.83 $\frac{1}{2}$	1.33			2.58 $\frac{1}{2}$	2.03 $\frac{1}{2}$
1891..		2.00		2.43 $\frac{1}{2}$	2.34 $\frac{1}{2}$			1.82 $\frac{1}{2}$	1.47			2.59 $\frac{1}{2}$	2.11 $\frac{1}{2}$
1892..		2.00		2.58 $\frac{1}{2}$	3.11 $\frac{1}{2}$			2.71	1.42			2.59 $\frac{1}{2}$	2.40 $\frac{1}{2}$
1893..		2.00		2.73 $\frac{1}{2}$	2.80 $\frac{1}{2}$			2.63	1.50			2.59 $\frac{1}{2}$	2.27 $\frac{1}{2}$
1894..		2.00		2.32 $\frac{1}{2}$	2.36			2.84 $\frac{3}{4}$	1.52			2.58 $\frac{1}{2}$	2.27 $\frac{1}{2}$
1895..		2.00		2.18 $\frac{1}{2}$	2.98 $\frac{3}{4}$			2.77	1.51			2.32 $\frac{1}{2}$	2.29 $\frac{3}{4}$
1896..		2.00		2.32 $\frac{1}{2}$	3.25			2.61	1.48			2.31 $\frac{1}{2}$	2.33
1897..		2.00		2.32 $\frac{1}{2}$	2.97 $\frac{3}{4}$			2.60	1.48			2.31 $\frac{1}{2}$	2.29 $\frac{3}{4}$
1898..		2.00		2.32 $\frac{1}{2}$	2.62 $\frac{1}{2}$			2.82	1.48			2.31 $\frac{1}{2}$	2.26

## HOD CARRIERS.

1870..	\$2.17 $\frac{1}{4}$	1.77 $\frac{1}{4}$	\$1.23 $\frac{3}{4}$	2.26 $\frac{3}{4}$	1.23 $\frac{3}{4}$	\$1.95 $\frac{3}{4}$	\$2.06		1.03	\$1.30 $\frac{1}{2}$	\$1.23 $\frac{3}{4}$	3.00	1.75 $\frac{1}{4}$
1871..	2.44	1.95	1.35 $\frac{1}{2}$	2.71	1.35 $\frac{1}{2}$	2.15 $\frac{1}{2}$	2.14 $\frac{1}{2}$		1.13	1.43	1.35 $\frac{1}{2}$	3.00	1.91
1872..	2.44 $\frac{1}{2}$	1.98 $\frac{3}{4}$	1.37 $\frac{1}{2}$	2.75	1.37 $\frac{1}{2}$	2.19 $\frac{1}{2}$	2.12		1.14 $\frac{1}{2}$	1.45	1.37 $\frac{1}{2}$	3.00	1.93
1873..	2.33	1.88 $\frac{1}{4}$	1.33	2.66 $\frac{1}{2}$	1.33	2.11 $\frac{1}{2}$	2.04		1.11	1.17 $\frac{1}{2}$	1.33	3.00	1.84 $\frac{1}{2}$
1874..	1.24	1.82	0.89 $\frac{3}{4}$	2.69 $\frac{1}{2}$	1.34 $\frac{3}{4}$	1.79 $\frac{1}{2}$	2.09 $\frac{1}{2}$		1.01	1.18 $\frac{3}{4}$	1.34 $\frac{3}{4}$	3.00	1.67 $\frac{1}{2}$
1875..	1.28 $\frac{3}{4}$	1.76	0.94 $\frac{1}{2}$	2.44 $\frac{1}{2}$	1.33 $\frac{1}{4}$	1.77	2.04 $\frac{1}{2}$		0.89	1.17 $\frac{1}{2}$	1.33 $\frac{1}{4}$	3.00	1.63 $\frac{1}{2}$
1876..	1.39 $\frac{1}{2}$	1.66 $\frac{1}{2}$	0.93	2.43 $\frac{1}{2}$	1.33	1.71 $\frac{1}{2}$	1.90		0.88 $\frac{3}{4}$	1.18 $\frac{1}{2}$	1.33	2.63 $\frac{1}{2}$	1.58 $\frac{1}{2}$
1877..	1.57	1.75 $\frac{1}{2}$	0.94 $\frac{1}{2}$	2.35 $\frac{1}{2}$	1.41 $\frac{1}{2}$	1.68	1.97 $\frac{1}{2}$		0.94 $\frac{1}{2}$	1.26 $\frac{1}{2}$	1.41 $\frac{1}{2}$	2.62 $\frac{1}{2}$	1.63
1878..	1.74	1.99 $\frac{1}{4}$	1.48	2.46 $\frac{1}{2}$	1.48	1.73 $\frac{3}{4}$	1.97 $\frac{1}{2}$		0.98 $\frac{1}{2}$	1.57 $\frac{1}{2}$	1.72 $\frac{1}{2}$	2.35 $\frac{1}{2}$	1.77 $\frac{1}{2}$
1879..	1.73 $\frac{1}{2}$	2.00	1.50	2.25	1.50	1.85	1.85		1.00	1.61	1.75	2.70	1.79 $\frac{1}{2}$
1880..	1.72 $\frac{1}{2}$	1.95	1.50	2.25	1.50	2.03	1.89 $\frac{1}{2}$		1.00	1.83 $\frac{1}{2}$	1.91 $\frac{3}{4}$	2.50	1.82 $\frac{3}{4}$
1881..	1.73 $\frac{1}{2}$	1.75	1.50	2.50	1.50	2.25	1.81 $\frac{3}{4}$		1.00	2.62 $\frac{1}{2}$	1.89 $\frac{3}{4}$	2.50	1.91 $\frac{1}{2}$
1882..	1.61 $\frac{1}{2}$	1.84 $\frac{3}{4}$	1.50	2.50	1.50	2.42 $\frac{3}{4}$	1.85		1.12 $\frac{1}{2}$	2.58 $\frac{3}{4}$	2.00	3.00	1.99 $\frac{1}{2}$
1883..	1.75	1.93 $\frac{3}{4}$	1.50	2.75	1.50	2.41 $\frac{1}{2}$	1.96 $\frac{1}{2}$		1.25	2.82 $\frac{1}{2}$	2.00	3.00	2.08
1884..	1.75	1.97	1.75	2.75	1.50	2.38 $\frac{3}{4}$	2.06 $\frac{1}{2}$		1.25	2.82	2.00	3.00	2.11 $\frac{1}{4}$
1885..	2.22 $\frac{1}{2}$	1.87 $\frac{1}{2}$	1.75	2.75	1.50	2.34 $\frac{1}{2}$	2.12 $\frac{1}{2}$		1.25	2.84 $\frac{1}{2}$	2.00	3.00	2.15
1886..	2.12 $\frac{1}{2}$	1.92 $\frac{1}{2}$	1.75	2.75	1.50	2.39 $\frac{1}{2}$	2.33 $\frac{1}{2}$		1.25	2.26	2.00	3.00	2.11 $\frac{3}{4}$
1887..	2.34 $\frac{1}{2}$	2.02 $\frac{1}{2}$	1.75	2.50	1.50	2.39 $\frac{3}{4}$	2.50		1.25	2.46	2.00	3.00	2.15 $\frac{3}{4}$
1888..	2.38 $\frac{1}{2}$	2.07	1.75	2.50	1.50	2.39 $\frac{1}{2}$	2.50		1.25	2.90	2.00	3.00	2.20 $\frac{1}{2}$
1889..	2.37 $\frac{1}{2}$	2.04 $\frac{1}{2}$	1.75	2.50	1.50	2.44 $\frac{1}{2}$	2.50		1.25	2.86	2.00	3.00	2.20 $\frac{1}{4}$
1890..	2.37 $\frac{1}{2}$	2.05 $\frac{1}{2}$	1.75	2.52	1.50	2.43 $\frac{3}{4}$	2.50		1.35	2.86	2.00	3.00	2.21 $\frac{1}{2}$
1891..	2.36 $\frac{1}{2}$	2.04 $\frac{1}{2}$	1.75	2.47 $\frac{1}{2}$	1.35	2.33 $\frac{3}{4}$	2.50		1.35	2.90	1.85	3.00	2.17 $\frac{1}{2}$
1892..	2.37 $\frac{1}{2}$	2.23 $\frac{1}{2}$	1.75	2.47 $\frac{1}{2}$	1.35	2.40	2.50		1.25	2.90	1.87 $\frac{1}{2}$	3.00	2.19 $\frac{1}{2}$
1893..	2.14	2.22	1.75	2.81 $\frac{1}{2}$	1.35	2.40	2.50		1.25	2.88	1.75	3.00	2.18 $\frac{1}{4}$
1894..	2.20	2.18 $\frac{1}{2}$	1.75	2.50	1.35	2.40	2.50		1.25	2.84	1.75	3.00	2.15 $\frac{3}{4}$
1895..	1.93 $\frac{3}{4}$	2.00	1.50	2.50	1.35	2.40	2.50		1.25	2.50	1.75	3.00	2.06 $\frac{1}{4}$
1896..	1.93 $\frac{3}{4}$	1.98 $\frac{1}{2}$	1.50	2.00	1.35	2.40	2.25		1.12 $\frac{1}{2}$	2.70	1.75	3.00	2.00
1897..	1.90 $\frac{3}{4}$	2.00	2.00	2.00	1.35	2.40	2.25		1.00	2.68	1.75	3.00	2.03
1898..	1.89	1.96 $\frac{3}{4}$	2.00	2.00	1.35	2.40	2.00		1.00	2.70	1.75	3.00	2.00 $\frac{1}{2}$



TABLE I.—AVERAGE DAILY WAGES IN GOLD IN CERTAIN CITIES OF THE UNITED STATES, 1870 TO 1898—Continued.

[The wages for the years 1870 to 1878, inclusive, except in the case of San Francisco, were reported in currency. In converting wages in currency into wages in gold the value of \$100 gold in currency for January of each year from 1870 to 1877 and the average value for the entire year 1878, as given in

IRON MOLDERS.

Year.	Balti- more.	Bos- ton.	Chi- cago.	Cin- cin- nati.	New Or- leans.	New York.	Phila- del- phia.	Pitts- burg and Alle- gheny.	Rich- mond.	St. Louis.	St. Paul.	San Fran- cisco.	Aver- age.
1870..	\$1.83 $\frac{1}{4}$	\$3.48 $\frac{1}{2}$	\$2.52 $\frac{3}{4}$	\$2.74 $\frac{3}{4}$	\$2.83 $\frac{1}{2}$	.....	\$1.95	\$2.22	.....	\$2.47 $\frac{1}{4}$	\$2.24 $\frac{3}{4}$	\$3.71 $\frac{3}{4}$	\$2.60 $\frac{1}{2}$
1871..	2.00	3.32 $\frac{1}{2}$	3.07	3.01	2.93 $\frac{1}{2}$	.....	2.24	2.34	.....	2.71	2.46 $\frac{1}{4}$	3.35 $\frac{3}{4}$	2.74 $\frac{1}{2}$
1872..	2.03 $\frac{3}{4}$	3.20 $\frac{3}{4}$	3.04	3.05 $\frac{1}{2}$	3.02 $\frac{1}{2}$	.....	2.36	2.44 $\frac{1}{2}$	.....	2.75	2.49 $\frac{3}{8}$	3.52 $\frac{3}{4}$	2.79 $\frac{1}{2}$
1873..	1.97 $\frac{1}{4}$	3.10 $\frac{1}{2}$	2.99 $\frac{1}{2}$	2.95 $\frac{3}{4}$	2.88 $\frac{1}{2}$	.....	2.29 $\frac{1}{2}$	2.32	.....	2.44	2.41 $\frac{3}{4}$	3.67 $\frac{1}{2}$	2.70 $\frac{3}{4}$
1874..	1.95 $\frac{1}{2}$	2.80 $\frac{1}{2}$	2.81 $\frac{3}{4}$	2.50 $\frac{3}{4}$	3.06 $\frac{3}{4}$	.....	2.33 $\frac{3}{4}$	2.13	.....	2.46 $\frac{3}{4}$	2.44 $\frac{1}{2}$	3.59 $\frac{1}{4}$	2.61 $\frac{1}{4}$
1875..	1.93 $\frac{1}{2}$	2.59	2.62 $\frac{3}{4}$	2.37	2.89	.....	2.20 $\frac{3}{4}$	1.96 $\frac{1}{2}$	.....	2.44 $\frac{1}{2}$	2.42 $\frac{1}{4}$	3.58 $\frac{1}{4}$	2.50 $\frac{1}{4}$
1876..	1.93	2.35 $\frac{1}{4}$	2.37 $\frac{1}{4}$	2.26 $\frac{1}{2}$	2.55	.....	2.05	1.84 $\frac{1}{2}$	.....	2.35	2.41	3.52 $\frac{1}{4}$	2.36 $\frac{1}{2}$
1877..	2.05	2.50	2.45 $\frac{1}{4}$	2.19 $\frac{3}{4}$	2.70 $\frac{3}{4}$	.....	2.04 $\frac{1}{2}$	2.06 $\frac{3}{4}$	.....	2.35 $\frac{1}{2}$	2.56	3.50	2.44 $\frac{1}{2}$
1878..	2.14 $\frac{3}{4}$	2.62 $\frac{1}{2}$	2.48	2.30	2.83 $\frac{1}{2}$	.....	2.06 $\frac{1}{4}$	2.15 $\frac{1}{4}$	.....	2.46 $\frac{1}{2}$	2.68	3.50	2.52 $\frac{1}{2}$
1879..	2.17 $\frac{3}{4}$	2.47 $\frac{1}{2}$	2.46 $\frac{1}{2}$	2.21	2.75	.....	2.10 $\frac{1}{2}$	2.02 $\frac{3}{4}$	.....	2.50	2.71 $\frac{3}{4}$	3.42 $\frac{1}{2}$	2.48 $\frac{1}{2}$
1880..	2.17 $\frac{3}{4}$	2.43 $\frac{3}{4}$	2.55 $\frac{1}{4}$	2.53	2.75	.....	2.20 $\frac{1}{2}$	2.38 $\frac{1}{2}$	.....	2.40	2.71 $\frac{3}{4}$	3.50 $\frac{3}{4}$	2.56 $\frac{3}{4}$
1881..	2.17 $\frac{3}{4}$	2.38 $\frac{1}{2}$	2.72 $\frac{1}{2}$	2.71 $\frac{1}{2}$	2.75	.....	2.33 $\frac{1}{2}$	2.60 $\frac{1}{4}$	.....	2.35	2.71 $\frac{3}{4}$	3.41	2.61 $\frac{3}{4}$
1882..	2.23 $\frac{1}{2}$	2.30 $\frac{1}{4}$	2.71 $\frac{1}{4}$	2.72	2.80	.....	2.30 $\frac{1}{2}$	2.56 $\frac{1}{4}$	.....	2.40	2.72	3.40	2.61 $\frac{1}{2}$
1883..	2.23 $\frac{1}{2}$	2.50	2.67 $\frac{1}{2}$	2.76	2.87 $\frac{1}{2}$	.....	2.48	2.53 $\frac{1}{4}$	.....	2.50	2.71 $\frac{3}{4}$	3.49 $\frac{1}{2}$	2.67 $\frac{3}{4}$
1884..	2.23 $\frac{1}{2}$	2.46 $\frac{3}{4}$	2.60	2.77 $\frac{1}{2}$	2.80	.....	2.52 $\frac{1}{2}$	2.54 $\frac{1}{2}$	.....	2.50	2.71 $\frac{3}{4}$	3.45	2.66 $\frac{1}{4}$
1885..	2.23 $\frac{1}{2}$	2.47 $\frac{1}{4}$	2.65	2.55	2.75	.....	2.39	2.39	.....	2.40	2.72 $\frac{3}{4}$	3.41 $\frac{3}{4}$	2.59 $\frac{3}{4}$
1886..	2.23 $\frac{1}{2}$	2.35 $\frac{1}{4}$	2.61 $\frac{1}{2}$	2.53 $\frac{1}{4}$	2.56 $\frac{3}{4}$	.....	2.58 $\frac{3}{4}$	2.40 $\frac{1}{4}$	.....	2.40	2.71 $\frac{3}{4}$	3.47 $\frac{1}{4}$	2.58 $\frac{3}{4}$
1887..	2.23 $\frac{1}{2}$	2.39	2.62 $\frac{1}{2}$	2.77 $\frac{1}{2}$	2.87 $\frac{1}{2}$	.....	2.40 $\frac{1}{4}$	2.55 $\frac{3}{4}$	.....	2.35	2.73	3.64 $\frac{3}{4}$	2.66
1888..	2.23 $\frac{1}{2}$	2.39 $\frac{1}{2}$	2.66	2.77 $\frac{1}{2}$	2.87 $\frac{1}{2}$	.....	2.34	2.53 $\frac{3}{4}$	.....	2.35	2.71	3.66 $\frac{1}{4}$	2.65 $\frac{1}{4}$
1889..	2.23 $\frac{1}{2}$	2.41 $\frac{1}{4}$	2.66	2.52 $\frac{3}{4}$	2.87 $\frac{1}{2}$	.....	2.41	2.51 $\frac{1}{4}$	.....	2.35	2.71	3.69	2.63 $\frac{3}{4}$
1890..	2.23 $\frac{1}{2}$	2.46 $\frac{3}{4}$	2.74 $\frac{1}{4}$	2.52 $\frac{1}{2}$	2.87 $\frac{1}{2}$	.....	2.36 $\frac{1}{2}$	2.60 $\frac{1}{2}$	.....	2.40	2.97	3.66	2.68 $\frac{1}{2}$
1891..	2.23 $\frac{1}{2}$	2.45	2.82	2.79 $\frac{1}{4}$	2.87 $\frac{1}{2}$	.....	2.35 $\frac{3}{4}$	2.74 $\frac{1}{2}$	.....	2.50	2.96 $\frac{1}{2}$	3.63 $\frac{1}{4}$	2.73 $\frac{3}{4}$
1892..	2.23 $\frac{1}{2}$	2.47 $\frac{1}{2}$	2.83 $\frac{1}{4}$	2.80	2.66 $\frac{3}{4}$	.....	2.33 $\frac{3}{4}$	2.59 $\frac{1}{4}$	.....	2.50	2.96 $\frac{1}{4}$	3.62	2.70 $\frac{1}{4}$
1893..	2.23 $\frac{1}{2}$	2.50	2.87 $\frac{1}{4}$	2.73	2.75	.....	2.31 $\frac{3}{4}$	2.51 $\frac{1}{2}$	.....	2.40	2.70 $\frac{1}{2}$	3.67	2.67
1894..	2.15 $\frac{1}{4}$	2.33 $\frac{1}{4}$	2.63 $\frac{1}{2}$	2.54 $\frac{1}{4}$	2.66 $\frac{3}{4}$	.....	2.29	2.41 $\frac{1}{2}$	.....	2.60	2.70 $\frac{1}{4}$	3.63 $\frac{1}{4}$	2.59 $\frac{3}{4}$
1895..	2.15 $\frac{1}{4}$	2.29	2.69 $\frac{1}{4}$	2.53 $\frac{3}{4}$	2.66 $\frac{3}{4}$	.....	2.26 $\frac{1}{2}$	2.39 $\frac{1}{2}$	.....	2.50	2.70	3.60 $\frac{1}{4}$	2.58
1896..	2.15 $\frac{1}{4}$	2.24 $\frac{3}{4}$	2.73 $\frac{3}{4}$	2.52 $\frac{3}{4}$	2.75	.....	2.22 $\frac{1}{4}$	2.34 $\frac{3}{4}$	.....	2.30	2.69 $\frac{1}{2}$	3.59	2.55 $\frac{3}{4}$
1897..	2.17 $\frac{3}{4}$	2.53 $\frac{1}{2}$	2.74 $\frac{1}{2}$	2.51 $\frac{3}{4}$	2.75	.....	2.21 $\frac{3}{4}$	2.42 $\frac{1}{4}$	.....	2.30	2.68 $\frac{3}{4}$	3.56 $\frac{3}{4}$	2.59 $\frac{1}{4}$
1898..	2.17 $\frac{3}{4}$	2.58	2.70	2.52	2.75	.....	2.32	2.33 $\frac{1}{2}$	.....	2.40	2.69 $\frac{1}{4}$	3.56 $\frac{1}{2}$	2.60 $\frac{1}{2}$

IRON MOLDERS' HELPERS.

1870..	1.12	1.65	1.72 $\frac{1}{2}$	1.45 $\frac{1}{4}$	1.65	.....	1.13 $\frac{1}{4}$	1.24 $\frac{1}{2}$	.....	1.44 $\frac{1}{4}$	1.43 $\frac{1}{4}$	2.46	1.53
1871..	1.22 $\frac{3}{4}$	1.80 $\frac{3}{4}$	1.92 $\frac{1}{2}$	1.56 $\frac{1}{4}$	1.80 $\frac{3}{4}$	.....	1.27 $\frac{3}{4}$	1.36 $\frac{3}{4}$	.....	1.58	1.57	2.41 $\frac{1}{4}$	1.65 $\frac{1}{2}$
1872..	1.24 $\frac{3}{4}$	1.69	1.88 $\frac{1}{4}$	1.63 $\frac{3}{4}$	1.83 $\frac{1}{4}$	.....	1.40	1.29 $\frac{1}{4}$	.....	1.60 $\frac{1}{2}$	1.58 $\frac{1}{2}$	2.29	1.63 $\frac{3}{4}$
1873..	1.20 $\frac{3}{4}$	1.68 $\frac{1}{2}$	1.78 $\frac{1}{2}$	1.60 $\frac{1}{2}$	1.77 $\frac{1}{2}$	.....	1.36 $\frac{1}{2}$	1.44 $\frac{1}{2}$	.....	1.46 $\frac{1}{2}$	1.53 $\frac{3}{4}$	2.23 $\frac{1}{2}$	1.61
1874..	1.22	1.79 $\frac{1}{2}$	1.78 $\frac{1}{4}$	1.49 $\frac{3}{4}$	1.79 $\frac{1}{2}$	.....	1.37 $\frac{1}{4}$	1.31	.....	1.43 $\frac{3}{4}$	1.34 $\frac{3}{4}$	2.17 $\frac{1}{4}$	1.57 $\frac{1}{4}$
1875..	1.21	1.77 $\frac{1}{2}$	1.73	1.36 $\frac{1}{2}$	1.77 $\frac{3}{4}$	.....	1.24 $\frac{1}{2}$	1.11 $\frac{3}{4}$	.....	1.33 $\frac{1}{4}$	1.33 $\frac{1}{4}$	2.22 $\frac{1}{2}$	1.51 $\frac{1}{4}$
1876..	1.20 $\frac{1}{2}$	1.64 $\frac{3}{4}$	1.61 $\frac{1}{4}$	1.43 $\frac{1}{4}$	1.41 $\frac{3}{4}$	.....	1.16 $\frac{1}{4}$	1.08	.....	1.33	1.33	2.27 $\frac{1}{2}$	1.45
1877..	1.28	1.71 $\frac{1}{4}$	1.69	1.41 $\frac{1}{4}$	1.69 $\frac{1}{2}$	.....	1.09	1.16	.....	1.41 $\frac{1}{4}$	1.41 $\frac{1}{4}$	2.25	1.51 $\frac{1}{4}$
1878..	1.34	1.85 $\frac{1}{2}$	1.72 $\frac{3}{4}$	1.53	1.77 $\frac{1}{2}$	.....	1.10 $\frac{1}{4}$	1.19 $\frac{3}{4}$	.....	1.48	1.69 $\frac{3}{4}$	2.29 $\frac{1}{4}$	1.60
1879..	1.36	1.73 $\frac{3}{4}$	1.85 $\frac{1}{4}$	1.35 $\frac{1}{4}$	1.80	.....	1.11 $\frac{1}{2}$	1.19 $\frac{3}{4}$	.....	1.50	1.73	2.22 $\frac{1}{4}$	1.58 $\frac{3}{4}$
1880..	1.36	1.67 $\frac{3}{4}$	1.72 $\frac{3}{4}$	1.51 $\frac{1}{2}$	1.72	.....	1.22 $\frac{1}{2}$	1.24	.....	1.50	1.95 $\frac{1}{4}$	2.21 $\frac{1}{4}$	1.61 $\frac{1}{4}$
1881..	1.36	1.65 $\frac{1}{2}$	1.74 $\frac{1}{4}$	1.50	1.70	.....	1.28 $\frac{1}{2}$	1.29	.....	1.50	1.95 $\frac{1}{4}$	2.13 $\frac{3}{4}$	1.61 $\frac{1}{4}$
1882..	1.36	1.71 $\frac{3}{4}$	1.72	1.50	1.60	.....	1.29	1.31	.....	1.50	1.94	2.16 $\frac{3}{4}$	1.61
1883..	1.36	1.66 $\frac{3}{4}$	1.72	1.50	1.60	.....	1.29 $\frac{1}{2}$	1.35 $\frac{3}{4}$	.....	1.55	1.94 $\frac{1}{2}$	2.17 $\frac{1}{2}$	1.61 $\frac{3}{4}$
1884..	1.36	1.64 $\frac{1}{2}$	1.73 $\frac{3}{4}$	1.50	1.60	.....	1.25 $\frac{1}{4}$	1.35 $\frac{1}{2}$	.....	1.55	1.73	2.22 $\frac{1}{4}$	1.59 $\frac{1}{2}$
1885..	1.36	1.62 $\frac{3}{4}$	1.71 $\frac{1}{2}$	1.33 $\frac{1}{4}$	1.60	.....	1.21 $\frac{3}{4}$	1.30 $\frac{1}{2}$	.....	1.50	1.73	2.20 $\frac{1}{2}$	1.56
1886..	1.36	1.59 $\frac{1}{2}$	1.72 $\frac{1}{2}$	1.33 $\frac{1}{4}$	1.51 $\frac{1}{2}$	.....	1.23	1.27	.....	1.50	1.72 $\frac{3}{4}$	2.25 $\frac{1}{4}$	1.55
1887..	1.36	1.63 $\frac{1}{2}$	1.71	1.48 $\frac{1}{4}$	1.53 $\frac{1}{4}$	.....	1.21 $\frac{1}{4}$	1.40	.....	1.50	1.73 $\frac{1}{4}$	2.24 $\frac{1}{4}$	1.58
1888..	1.36	1.68 $\frac{1}{4}$	1.72	1.48	1.55	.....	1.23 $\frac{1}{2}$	1.39 $\frac{1}{4}$	.....	1.50	1.72 $\frac{1}{2}$	2.23 $\frac{1}{2}$	1.58 $\frac{3}{4}$
1889..	1.36	1.70 $\frac{3}{4}$	1.71 $\frac{1}{4}$	1.48 $\frac{1}{4}$	1.55	.....	1.26 $\frac{1}{4}$	1.42 $\frac{1}{4}$	.....	1.50	1.71 $\frac{1}{2}$	2.24 $\frac{1}{4}$	1.59 $\frac{1}{2}$
1890..	1.36	1.68 $\frac{1}{4}$	1.72 $\frac{1}{4}$	1.48	1.55	.....	1.22 $\frac{1}{2}$	1.44 $\frac{1}{2}$	.....	1.55	1.75	2.22 $\frac{3}{4}$	1.60
1891..	1.36	1.68 $\frac{1}{2}$	1.83	1.47 $\frac{3}{4}$	1.55	.....	1.26 $\frac{1}{2}$	1.44 $\frac{1}{2}$	.....	1.60	1.75	2.22 $\frac{1}{2}$	1.62
1892..	1.36	1.70 $\frac{3}{4}$	1.89 $\frac{1}{4}$	1.48	1.50	.....	1.29 $\frac{3}{4}$	1.44 $\frac{1}{2}$	.....	1.65	1.75	2.21 $\frac{3}{4}$	1.63
1893..	1.36	1.70 $\frac{3}{4}$	1.93	1.47 $\frac{1}{2}$	1.50	.....	1.31 $\frac{1}{4}$	1.44 $\frac{1}{2}$	.....	1.50	1.72	2.27	1.62 $\frac{1}{4}$
1894..	1.36	1.57 $\frac{3}{4}$	1.66	1.48	1.50	.....	1.25 $\frac{3}{4}$	1.34 $\frac{1}{4}$	.....	1.50	1.72	2.24 $\frac{1}{2}$	1.56 $\frac{1}{2}$
1895..	1.36	1.53	1.69 $\frac{1}{4}$	1.47 $\frac{1}{4}$	1.50	.....	1.22	1.34 $\frac{3}{4}$	.....	1.50	1.72 $\frac{1}{4}$	2.25 $\frac{1}{2}$	1.56
1896..	1.36	1.55 $\frac{3}{4}$	1.79 $\frac{3}{4}$	1.47 $\frac{1}{4}$	1.50	.....	1.27 $\frac{3}{4}$	1.34 $\frac{3}{4}$	.....	1.50	1.71 $\frac{3}{4}$	2.24 $\frac{1}{4}$	1.57 $\frac{3}{4}$
1897..	1.36	1.54 $\frac{1}{4}$	1.80 $\frac{1}{4}$	1.47 $\frac{1}{2}$	1.50	.....	1.26	1.39 $\frac{1}{4}$	.....	1.50	1.72	2.19	1.57 $\frac{1}{2}$
1898..	1.36	1.61 $\frac{1}{4}$	1.83	1.47 $\frac{1}{2}$	1.50	.....	1.28 $\frac{1}{2}$	1.33 $\frac{1}{2}$	.....	1.50	1.72 $\frac{1}{2}$	2.19 $\frac{1}{4}$	1.58 $\frac{1}{4}$



TABLE I.—AVERAGE DAILY WAGES, IN GOLD, IN CERTAIN CITIES OF THE UNITED STATES, 1870 TO 1898—Continued.

The American Almanac for 1879, have been used, as follows: 1870, \$121.3; 1871, \$110.7; 1872, \$109.1; 1873, \$112.7; 1874, \$111.4; 1875, \$112.5; 1876, \$112.8; 1877, \$106.2, and 1878, \$101.4.]

JOINERS.

Year.	Balti- more.	Bos- ton.	Chi- cago.	Cin- cin- nati.	New Or- leans.	New York.	Phila- del- phia.	Pitts- burg and Alle- gheny.	Rich- mond.	St. Louis.	St. Paul.	San Fran- cisco.	Aver- age.
1870..	.....	.....	.....	.....	\$2. 88 <sup>1</sup> / <sub>2</sub>	\$2. 65 <sup>3</sup> / <sub>4</sub>	\$2. 34 <sup>1</sup> / <sub>2</sub>	\$2. 20 <sup>3</sup> / <sub>4</sub>	\$1. 79 <sup>1</sup> / <sub>2</sub>	.....	\$1. 65	.....	\$2. 25 <sup>3</sup> / <sub>4</sub>
1871..	.....	.....	.....	.....	3. 16 <sup>1</sup> / <sub>4</sub>	2. 88 <sup>1</sup> / <sub>2</sub>	2. 30 <sup>1</sup> / <sub>4</sub>	2. 51 <sup>1</sup> / <sub>2</sub>	2. 00 <sup>1</sup> / <sub>2</sub>	.....	1. 80 <sup>3</sup> / <sub>4</sub>	.....	2. 44 <sup>3</sup> / <sub>4</sub>
1872..	.....	.....	.....	.....	3. 20 <sup>1</sup> / <sub>4</sub>	2. 88 <sup>1</sup> / <sub>2</sub>	2. 47	2. 42	2. 13 <sup>1</sup> / <sub>4</sub>	.....	1. 83 <sup>1</sup> / <sub>4</sub>	.....	2. 49 <sup>1</sup> / <sub>4</sub>
1873..	.....	.....	.....	.....	3. 10 <sup>1</sup> / <sub>2</sub>	2. 73 <sup>1</sup> / <sub>4</sub>	2. 50 <sup>1</sup> / <sub>4</sub>	2. 49 <sup>1</sup> / <sub>2</sub>	2. 06 <sup>1</sup> / <sub>4</sub>	.....	1. 77 <sup>1</sup> / <sub>2</sub>	.....	2. 44 <sup>1</sup> / <sub>2</sub>
1874..	.....	.....	.....	.....	2. 58	2. 77 <sup>1</sup> / <sub>2</sub>	2. 52 <sup>1</sup> / <sub>4</sub>	2. 53	2. 09 <sup>3</sup> / <sub>4</sub>	.....	1. 79 <sup>1</sup> / <sub>2</sub>	.....	2. 38 <sup>1</sup> / <sub>4</sub>
1875..	.....	.....	.....	.....	2. 55 <sup>1</sup> / <sub>2</sub>	2. 49	2. 37	2. 35 <sup>1</sup> / <sub>2</sub>	2. 17 <sup>3</sup> / <sub>4</sub>	.....	1. 77 <sup>3</sup> / <sub>4</sub>	.....	2. 28 <sup>1</sup> / <sub>2</sub>
1876..	.....	.....	.....	.....	2. 55	2. 35 <sup>1</sup> / <sub>4</sub>	2. 37 <sup>1</sup> / <sub>4</sub>	1. 95 <sup>3</sup> / <sub>4</sub>	2. 03 <sup>3</sup> / <sub>4</sub>	.....	1. 77 <sup>1</sup> / <sub>4</sub>	.....	2. 17 <sup>1</sup> / <sub>2</sub>
1877..	.....	.....	.....	.....	2. 70 <sup>3</sup> / <sub>4</sub>	2. 35 <sup>1</sup> / <sub>2</sub>	2. 06	1. 94 <sup>3</sup> / <sub>4</sub>	2. 07 <sup>3</sup> / <sub>4</sub>	.....	1. 88 <sup>1</sup> / <sub>4</sub>	.....	2. 17 <sup>1</sup> / <sub>4</sub>
1878..	.....	.....	.....	.....	2. 83 <sup>1</sup> / <sub>2</sub>	2. 46 <sup>1</sup> / <sub>2</sub>	2. 33 <sup>1</sup> / <sub>2</sub>	1. 72 <sup>1</sup> / <sub>2</sub>	2. 19	.....	2. 22	.....	2. 29 <sup>1</sup> / <sub>2</sub>
1879..	.....	.....	.....	.....	2. 75	2. 50	2. 00	1. 89	2. 25	.....	2. 25	.....	2. 27 <sup>1</sup> / <sub>4</sub>
1880..	.....	.....	.....	.....	2. 75	3. 00	1. 93	2. 04 <sup>1</sup> / <sub>2</sub>	2. 22 <sup>3</sup> / <sub>4</sub>	.....	2. 25	.....	2. 36 <sup>3</sup> / <sub>4</sub>
1881..	.....	.....	.....	.....	2. 75	3. 09 <sup>1</sup> / <sub>2</sub>	2. 43 <sup>3</sup> / <sub>4</sub>	2. 21 <sup>1</sup> / <sub>2</sub>	2. 33 <sup>1</sup> / <sub>2</sub>	.....	2. 50	.....	2. 55 <sup>1</sup> / <sub>2</sub>
1882..	.....	.....	.....	.....	2. 75	3. 21 <sup>1</sup> / <sub>4</sub>	2. 46 <sup>1</sup> / <sub>4</sub>	2. 50	2. 40 <sup>3</sup> / <sub>4</sub>	.....	2. 50	.....	2. 64
1883..	.....	.....	.....	.....	2. 62 <sup>1</sup> / <sub>2</sub>	3. 21 <sup>1</sup> / <sub>2</sub>	2. 48 <sup>1</sup> / <sub>2</sub>	2. 50	2. 41 <sup>1</sup> / <sub>4</sub>	.....	2. 50	.....	2. 62 <sup>1</sup> / <sub>4</sub>
1884..	.....	.....	.....	.....	2. 68 <sup>3</sup> / <sub>4</sub>	3. 20 <sup>3</sup> / <sub>4</sub>	2. 69	2. 50	2. 41 <sup>1</sup> / <sub>4</sub>	.....	2. 50	.....	2. 66 <sup>3</sup> / <sub>4</sub>
1885..	.....	.....	.....	.....	2. 62 <sup>1</sup> / <sub>2</sub>	3. 19 <sup>1</sup> / <sub>4</sub>	2. 64 <sup>1</sup> / <sub>4</sub>	2. 29 <sup>1</sup> / <sub>4</sub>	2. 42 <sup>1</sup> / <sub>4</sub>	.....	2. 50	.....	2. 61 <sup>1</sup> / <sub>2</sub>
1886..	.....	.....	.....	.....	2. 62 <sup>1</sup> / <sub>2</sub>	3. 17 <sup>1</sup> / <sub>4</sub>	2. 63 <sup>3</sup> / <sub>4</sub>	2. 25	2. 08 <sup>1</sup> / <sub>2</sub>	.....	2. 50	.....	2. 54 <sup>1</sup> / <sub>2</sub>
1887..	.....	.....	.....	.....	2. 62 <sup>1</sup> / <sub>2</sub>	3. 12 <sup>3</sup> / <sub>4</sub>	2. 66	2. 29 <sup>1</sup> / <sub>2</sub>	2. 20	.....	2. 50	.....	2. 56 <sup>3</sup> / <sub>4</sub>
1888..	.....	.....	.....	.....	2. 62 <sup>1</sup> / <sub>2</sub>	3. 17 <sup>1</sup> / <sub>2</sub>	2. 63 <sup>3</sup> / <sub>4</sub>	2. 30 <sup>3</sup> / <sub>4</sub>	2. 23 <sup>3</sup> / <sub>4</sub>	.....	2. 50	.....	2. 58
1889..	.....	.....	.....	.....	2. 62 <sup>1</sup> / <sub>2</sub>	3. 15 <sup>1</sup> / <sub>4</sub>	2. 66 <sup>1</sup> / <sub>4</sub>	2. 63 <sup>1</sup> / <sub>4</sub>	2. 31	.....	2. 50	.....	2. 64 <sup>3</sup> / <sub>4</sub>
1890..	.....	.....	.....	.....	2. 62 <sup>1</sup> / <sub>2</sub>	3. 18	2. 41 <sup>1</sup> / <sub>2</sub>	2. 75	2. 32	.....	2. 50	.....	2. 63 <sup>1</sup> / <sub>4</sub>
1891..	.....	.....	.....	.....	2. 62 <sup>1</sup> / <sub>2</sub>	3. 15 <sup>3</sup> / <sub>4</sub>	2. 61 <sup>3</sup> / <sub>4</sub>	2. 75	2. 37	.....	2. 25	.....	2. 62 <sup>3</sup> / <sub>4</sub>
1892..	.....	.....	.....	.....	2. 41 <sup>3</sup> / <sub>4</sub>	3. 04	2. 65 <sup>1</sup> / <sub>4</sub>	2. 69	2. 40 <sup>1</sup> / <sub>2</sub>	.....	2. 25	.....	2. 57 <sup>3</sup> / <sub>4</sub>
1893..	.....	.....	.....	.....	2. 62 <sup>1</sup> / <sub>2</sub>	3. 07 <sup>1</sup> / <sub>2</sub>	2. 40 <sup>3</sup> / <sub>4</sub>	2. 50	2. 39	.....	2. 25	.....	2. 51 <sup>1</sup> / <sub>4</sub>
1894..	.....	.....	.....	.....	2. 62 <sup>1</sup> / <sub>2</sub>	3. 06 <sup>1</sup> / <sub>2</sub>	2. 58 <sup>1</sup> / <sub>2</sub>	2. 50	2. 42 <sup>1</sup> / <sub>2</sub>	.....	2. 25	.....	2. 57 <sup>1</sup> / <sub>2</sub>
1895..	.....	.....	.....	.....	2. 62 <sup>1</sup> / <sub>2</sub>	3. 07 <sup>1</sup> / <sub>2</sub>	2. 56 <sup>1</sup> / <sub>2</sub>	2. 16 <sup>3</sup> / <sub>4</sub>	2. 35	.....	2. 25	.....	2. 50 <sup>1</sup> / <sub>2</sub>
1896..	.....	.....	.....	.....	2. 41 <sup>3</sup> / <sub>4</sub>	3. 06 <sup>1</sup> / <sub>2</sub>	2. 44 <sup>1</sup> / <sub>4</sub>	2. 25	2. 22 <sup>1</sup> / <sub>2</sub>	.....	2. 25	.....	2. 41 <sup>1</sup> / <sub>4</sub>
1897..	.....	.....	.....	.....	2. 41 <sup>3</sup> / <sub>4</sub>	3. 11 <sup>1</sup> / <sub>2</sub>	2. 36 <sup>3</sup> / <sub>4</sub>	2. 18 <sup>3</sup> / <sub>4</sub>	2. 33 <sup>1</sup> / <sub>4</sub>	.....	2. 25	.....	2. 44 <sup>1</sup> / <sub>2</sub>
1898..	.....	.....	.....	.....	2. 62 <sup>1</sup> / <sub>2</sub>	3. 10	2. 40	2. 20 <sup>3</sup> / <sub>4</sub>	2. 22 <sup>3</sup> / <sub>4</sub>	.....	2. 25	.....	2. 47

LABORERS, STREET.

1870..	\$1. 06 <sup>1</sup> / <sub>2</sub>	\$1. 43 <sup>3</sup> / <sub>4</sub>	.....	\$1. 58	1. 44 <sup>1</sup> / <sub>4</sub>	.....	1. 48 <sup>3</sup> / <sub>4</sub>	1. 59 <sup>3</sup> / <sub>4</sub>	0. 82 <sup>1</sup> / <sub>2</sub>	\$1. 65	1. 03	\$2. 50	1. 46 <sup>1</sup> / <sub>4</sub>
1871..	1. 16 <sup>3</sup> / <sub>4</sub>	1. 77 <sup>1</sup> / <sub>2</sub>	.....	1. 70 <sup>1</sup> / <sub>2</sub>	1. 63 <sup>1</sup> / <sub>4</sub>	.....	1. 62 <sup>1</sup> / <sub>4</sub>	1. 80 <sup>3</sup> / <sub>4</sub>	1. 13	1. 80 <sup>3</sup> / <sub>4</sub>	1. 13	2. 50	1. 62 <sup>3</sup> / <sub>4</sub>
1872..	1. 18 <sup>1</sup> / <sub>2</sub>	1. 78 <sup>1</sup> / <sub>4</sub>	.....	1. 73 <sup>1</sup> / <sub>4</sub>	1. 61	.....	1. 63 <sup>3</sup> / <sub>4</sub>	1. 72 <sup>1</sup> / <sub>4</sub>	1. 14 <sup>1</sup> / <sub>2</sub>	1. 83 <sup>1</sup> / <sub>4</sub>	1. 14 <sup>1</sup> / <sub>2</sub>	2. 50	1. 63
1873..	1. 14 <sup>1</sup> / <sub>2</sub>	1. 75 <sup>1</sup> / <sub>2</sub>	.....	1. 68 <sup>1</sup> / <sub>2</sub>	1. 58	.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 55 <sup>1</sup> / <sub>2</sub>	1. 11	1. 77 <sup>1</sup> / <sub>2</sub>	1. 11	2. 50	1. 58 <sup>1</sup> / <sub>2</sub>
1874..	1. 16	1. 79 <sup>1</sup> / <sub>2</sub>	.....	1. 68 <sup>1</sup> / <sub>2</sub>	1. 60 <sup>1</sup> / <sub>2</sub>	.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 46 <sup>1</sup> / <sub>2</sub>	1. 12 <sup>1</sup> / <sub>4</sub>	1. 79 <sup>1</sup> / <sub>2</sub>	1. 12 <sup>1</sup> / <sub>4</sub>	2. 50	1. 58 <sup>1</sup> / <sub>2</sub>
1875..	1. 15	1. 48 <sup>1</sup> / <sub>2</sub>	.....	1. 66 <sup>3</sup> / <sub>4</sub>	1. 33 <sup>1</sup> / <sub>4</sub>	.....	1. 57 <sup>1</sup> / <sub>4</sub>	1. 44 <sup>1</sup> / <sub>2</sub>	1. 11	1. 77 <sup>3</sup> / <sub>4</sub>	1. 11	2. 50	1. 51 <sup>1</sup> / <sub>2</sub>
1876..	1. 14 <sup>1</sup> / <sub>2</sub>	1. 44 <sup>3</sup> / <sub>4</sub>	.....	1. 59 <sup>1</sup> / <sub>4</sub>	1. 33	.....	1. 56 <sup>3</sup> / <sub>4</sub>	1. 42 <sup>3</sup> / <sub>4</sub>	1. 10 <sup>3</sup> / <sub>4</sub>	1. 33	1. 10 <sup>3</sup> / <sub>4</sub>	2. 50	1. 45 <sup>1</sup> / <sub>2</sub>
1877..	1. 23 <sup>1</sup> / <sub>2</sub>	1. 35	.....	1. 51 <sup>1</sup> / <sub>2</sub>	1. 26 <sup>3</sup> / <sub>4</sub>	.....	1. 68 <sup>1</sup> / <sub>4</sub>	1. 51 <sup>1</sup> / <sub>4</sub>	1. 17 <sup>3</sup> / <sub>4</sub>	1. 41 <sup>1</sup> / <sub>4</sub>	1. 17 <sup>3</sup> / <sub>4</sub>	2. 50	1. 48 <sup>1</sup> / <sub>4</sub>
1878..	1. 29 <sup>1</sup> / <sub>2</sub>	1. 48	.....	1. 35 <sup>1</sup> / <sub>4</sub>	1. 29 <sup>1</sup> / <sub>2</sub>	.....	1. 52 <sup>1</sup> / <sub>4</sub>	1. 59	1. 23 <sup>1</sup> / <sub>4</sub>	1. 48	1. 23 <sup>1</sup> / <sub>4</sub>	2. 18 <sup>3</sup> / <sub>4</sub>	1. 46 <sup>3</sup> / <sub>4</sub>
1879..	1. 31 <sup>1</sup> / <sub>4</sub>	1. 49 <sup>1</sup> / <sub>4</sub>	.....	1. 37 <sup>1</sup> / <sub>2</sub>	1. 27 <sup>1</sup> / <sub>2</sub>	.....	1. 54 <sup>3</sup> / <sub>4</sub>	1. 60 <sup>1</sup> / <sub>2</sub>	1. 25	1. 50	1. 25	2. 39 <sup>1</sup> / <sub>4</sub>	1. 50
1880..	1. 31 <sup>1</sup> / <sub>4</sub>	1. 74 <sup>1</sup> / <sub>2</sub>	.....	1. 50 <sup>1</sup> / <sub>2</sub>	1. 25	.....	1. 57 <sup>1</sup> / <sub>4</sub>	1. 61	1. 25	1. 50	1. 25	2. 00	1. 50
1881..	1. 31 <sup>1</sup> / <sub>4</sub>	1. 85 <sup>1</sup> / <sub>4</sub>	.....	1. 53 <sup>1</sup> / <sub>2</sub>	1. 25	.....	1. 57 <sup>1</sup> / <sub>4</sub>	1. 62 <sup>1</sup> / <sub>4</sub>	1. 25	1. 50	1. 25	2. 00	1. 51 <sup>1</sup> / <sub>2</sub>
1882..	1. 31 <sup>1</sup> / <sub>4</sub>	1. 90 <sup>3</sup> / <sub>4</sub>	.....	1. 53 <sup>1</sup> / <sub>2</sub>	1. 25	.....	1. 56 <sup>1</sup> / <sub>4</sub>	1. 44	1. 25	1. 50	1. 25	2. 00	1. 50
1883..	1. 31 <sup>1</sup> / <sub>4</sub>	2. 07 <sup>1</sup> / <sub>4</sub>	.....	1. 63 <sup>1</sup> / <sub>2</sub>	1. 50	.....	1. 56 <sup>3</sup> / <sub>4</sub>	1. 45 <sup>2</sup> / <sub>2</sub>	1. 25	1. 50	1. 25	2. 00	1. 55 <sup>1</sup> / <sub>2</sub>
1884..	1. 31 <sup>1</sup> / <sub>4</sub>	2. 06 <sup>1</sup> / <sub>2</sub>	.....	1. 64 <sup>1</sup> / <sub>2</sub>	1. 50	.....	1. 54 <sup>1</sup> / <sub>2</sub>	1. 47 <sup>1</sup> / <sub>4</sub>	1. 25	1. 50	1. 25	2. 00	1. 55 <sup>1</sup> / <sub>2</sub>
1885..	1. 31 <sup>1</sup> / <sub>4</sub>	2. 01 <sup>3</sup> / <sub>4</sub>	.....	1. 63 <sup>1</sup> / <sub>2</sub>	1. 50	.....	1. 52	1. 49	1. 25	1. 50	1. 25	2. 00	1. 54 <sup>3</sup> / <sub>4</sub>
1886..	1. 30	2. 02 <sup>1</sup> / <sub>2</sub>	.....	1. 63	1. 50	.....	1. 51 <sup>2</sup> / <sub>4</sub>	1. 47 <sup>1</sup> / <sub>4</sub>	1. 50	1. 50	1. 25	2. 00	1. 57
1887..	1. 30	2. 01 <sup>1</sup> / <sub>4</sub>	.....	1. 65 <sup>1</sup> / <sub>2</sub>	1. 50	.....	1. 52 <sup>1</sup> / <sub>2</sub>	1. 48 <sup>3</sup> / <sub>4</sub>	1. 50	1. 50	1. 50	2. 00	1. 59 <sup>3</sup> / <sub>4</sub>
1888..	1. 30	2. 01 <sup>3</sup> / <sub>4</sub>	.....	1. 66 <sup>1</sup> / <sub>4</sub>	1. 51 <sup>1</sup> / <sub>4</sub>	.....	1. 52 <sup>3</sup> / <sub>4</sub>	1. 51 <sup>1</sup> / <sub>4</sub>	1. 50	1. 50	1. 50	2. 00	1. 60 <sup>1</sup> / <sub>4</sub>
1889..	1. 30	2. 01 <sup>1</sup> / <sub>4</sub>	.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 50	.....	1. 52 <sup>1</sup> / <sub>4</sub>	1. 52 <sup>1</sup> / <sub>2</sub>	1. 50	1. 50	1. 42 <sup>3</sup> / <sub>4</sub>	2. 00	1. 59 <sup>1</sup> / <sub>4</sub>
1890..	1. 30	2. 01 <sup>1</sup> / <sub>4</sub>	.....	1. 67	1. 50	.....	1. 52 <sup>1</sup> / <sub>2</sub>	1. 50 <sup>3</sup> / <sub>4</sub>	1. 50	1. 50	1. 42	2. 00	1. 59 <sup>1</sup> / <sub>4</sub>
1891..	1. 30	2. 00 <sup>1</sup> / <sub>2</sub>	.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 50	.....	1. 51 <sup>1</sup> / <sub>2</sub>	1. 53 <sup>1</sup> / <sub>2</sub>	1. 50	1. 50	1. 42	2. 00	1. 59 <sup>1</sup> / <sub>4</sub>
1892..	1. 30	2. 00 <sup>3</sup> / <sub>4</sub>	.....	1. 63	1. 50	.....	1. 51 <sup>1</sup> / <sub>4</sub>	1. 52 <sup>3</sup> / <sub>4</sub>	1. 50	1. 50	1. 42	2. 00	1. 59
1893..	1. 30	2. 00 <sup>1</sup> / <sub>2</sub>	.....	1. 63 <sup>1</sup> / <sub>4</sub>	1. 50	.....	1. 75	1. 53	1. 50	1. 50	1. 42	2. 00	1. 61 <sup>1</sup> / <sub>2</sub>
1894..	1. 30	2. 01	.....	1. 63 <sup>1</sup> / <sub>4</sub>	1. 50	.....	1. 75	1. 50	1. 50	1. 50	1. 50	2. 00	1. 62
1895..	1. 30	2. 01 <sup>3</sup> / <sub>4</sub>	.....	1. 63 <sup>1</sup> / <sub>4</sub>	1. 50	.....	1. 75	1. 50	1. 50	1. 50	1. 50	2. 00	1. 62
1896..	1. 30	2. 01 <sup>1</sup> / <sub>4</sub>	.....	1. 63	1. 50	.....	1. 75	1. 50	1. 50	1. 50	1. 50	2. 00	1. 62
1897..	1. 30	2. 00	.....	1. 63 <sup>1</sup> / <sub>4</sub>	1. 50	.....	1. 75	1. 50	1. 50	1. 50	1. 50	2. 00	1. 61 <sup>3</sup> / <sub>4</sub>
1898..	1. 66 <sup>3</sup> / <sub>4</sub>	2. 00	.....	1. 63 <sup>1</sup> / <sub>2</sub>	1. 50	.....	1. 75	1. 50	1. 50	1. 50	1. 50	2. 00	1. 65 <sup>3</sup> / <sub>4</sub>



TABLE I.—AVERAGE DAILY WAGES IN GOLD IN CERTAIN CITIES OF THE UNITED STATES, 1870 TO 1898—Continued.

[The wages for the years 1870 to 1878, inclusive, except in the case of San Francisco, were reported in currency. In converting wages in currency into wages in gold the value of \$100 gold in currency for January of each year from 1870 to 1877 and the average value for the entire year 1878, as given in

LABORERS, OTHER.

Year.	Balti- more.	Bos- ton.	Chi- cago.	Cin- cin- nati.	New Or- leans.	New York.	Phila- del- phia.	Pitts- burg and Alle- gheny.	Rich- mond.	St. Louis.	St. Paul.	San Fran- cisco.	Aver- age.
1870..	\$1.16 <sup>3</sup> / <sub>4</sub>	\$1.23 <sup>3</sup> / <sub>4</sub>	\$1.56 <sup>3</sup> / <sub>4</sub>	\$1.44 <sup>1</sup> / <sub>4</sub>	\$1.23 <sup>3</sup> / <sub>4</sub>	\$1.76 <sup>1</sup> / <sub>4</sub>	\$1.29 <sup>3</sup> / <sub>4</sub>	.....	.....	\$1.23 <sup>3</sup> / <sub>4</sub>	\$1.03	\$2.00	\$1.39 <sup>3</sup> / <sub>4</sub>
1871..	1.28	1.35 <sup>1</sup> / <sub>2</sub>	1.71 <sup>3</sup> / <sub>4</sub>	1.58	1.35 <sup>1</sup> / <sub>2</sub>	1.79 <sup>1</sup> / <sub>2</sub>	1.35 <sup>1</sup> / <sub>2</sub>	.....	.....	1.25 <sup>1</sup> / <sub>2</sub>	1.13	2.00	1.49 <sup>1</sup> / <sub>4</sub>
1872..	1.30	1.37 <sup>1</sup> / <sub>2</sub>	1.74 <sup>1</sup> / <sub>2</sub>	1.83 <sup>1</sup> / <sub>4</sub>	1.37 <sup>1</sup> / <sub>2</sub>	1.82 <sup>3</sup> / <sub>4</sub>	1.37 <sup>1</sup> / <sub>2</sub>	.....	.....	1.37 <sup>1</sup> / <sub>2</sub>	1.14 <sup>1</sup> / <sub>2</sub>	2.00	1.53 <sup>1</sup> / <sub>2</sub>
1873..	1.25 <sup>3</sup> / <sub>4</sub>	1.33	1.68 <sup>1</sup> / <sub>4</sub>	1.90 <sup>1</sup> / <sub>4</sub>	1.33	1.77	1.33	.....	.....	1.33	1.11	2.00	1.50 <sup>1</sup> / <sub>2</sub>
1874..	1.12 <sup>1</sup> / <sub>4</sub>	1.34 <sup>1</sup> / <sub>2</sub>	1.57 <sup>1</sup> / <sub>2</sub>	1.63 <sup>1</sup> / <sub>2</sub>	1.34 <sup>3</sup> / <sub>4</sub>	1.77	1.34 <sup>3</sup> / <sub>4</sub>	.....	.....	1.34 <sup>3</sup> / <sub>4</sub>	1.12 <sup>1</sup> / <sub>4</sub>	2.00	1.46 <sup>1</sup> / <sub>4</sub>
1875..	1.11	1.32 <sup>1</sup> / <sub>4</sub>	1.55	1.51 <sup>3</sup> / <sub>4</sub>	1.55 <sup>1</sup> / <sub>2</sub>	1.69	1.33 <sup>1</sup> / <sub>4</sub>	.....	.....	1.33 <sup>1</sup> / <sub>4</sub>	1.11	2.00	1.45 <sup>1</sup> / <sub>4</sub>
1876..	1.10 <sup>3</sup> / <sub>4</sub>	1.33	1.41 <sup>1</sup> / <sub>2</sub>	1.49 <sup>1</sup> / <sub>4</sub>	1.55 <sup>1</sup> / <sub>4</sub>	1.65 <sup>3</sup> / <sub>4</sub>	1.33	.....	.....	1.33	1.10 <sup>3</sup> / <sub>4</sub>	2.00	1.43 <sup>1</sup> / <sub>4</sub>
1877..	1.17 <sup>3</sup> / <sub>4</sub>	1.38 <sup>1</sup> / <sub>2</sub>	1.41 <sup>1</sup> / <sub>4</sub>	1.49	1.41 <sup>1</sup> / <sub>4</sub>	1.31	1.30 <sup>1</sup> / <sub>2</sub>	.....	.....	1.41 <sup>1</sup> / <sub>4</sub>	1.17 <sup>3</sup> / <sub>4</sub>	2.00	1.40 <sup>3</sup> / <sub>4</sub>
1878..	1.23 <sup>1</sup> / <sub>4</sub>	1.48	1.47 <sup>3</sup> / <sub>4</sub>	1.38 <sup>1</sup> / <sub>4</sub>	1.48	1.33 <sup>1</sup> / <sub>4</sub>	1.23 <sup>1</sup> / <sub>4</sub>	.....	.....	1.48	1.33 <sup>3</sup> / <sub>4</sub>	2.00	1.44 <sup>1</sup> / <sub>4</sub>
1879..	1.25	1.40 <sup>1</sup> / <sub>4</sub>	1.49 <sup>1</sup> / <sub>4</sub>	1.35 <sup>3</sup> / <sub>4</sub>	1.50	1.38	1.25	.....	.....	1.50	1.35 <sup>1</sup> / <sub>2</sub>	2.00	1.45
1880..	1.25	1.49 <sup>1</sup> / <sub>2</sub>	1.58 <sup>1</sup> / <sub>2</sub>	1.38 <sup>1</sup> / <sub>2</sub>	1.50	1.38 <sup>1</sup> / <sub>2</sub>	1.25	.....	.....	1.50	1.50	2.00	1.48 <sup>1</sup> / <sub>2</sub>
1881..	1.25	1.50	1.59	1.50 <sup>1</sup> / <sub>2</sub>	1.50	1.59	1.25	.....	.....	1.50	1.50	2.00	1.51 <sup>3</sup> / <sub>4</sub>
1882..	1.25	1.43 <sup>3</sup> / <sub>4</sub>	1.59 <sup>1</sup> / <sub>2</sub>	1.59 <sup>3</sup> / <sub>4</sub>	1.50	1.66 <sup>1</sup> / <sub>4</sub>	1.50	.....	.....	1.50	1.50	2.00	1.55 <sup>1</sup> / <sub>2</sub>
1883..	1.25	1.50	1.50 <sup>1</sup> / <sub>4</sub>	1.69 <sup>1</sup> / <sub>2</sub>	1.50	1.71 <sup>1</sup> / <sub>4</sub>	1.50	.....	.....	1.50	1.50	2.00	1.56 <sup>1</sup> / <sub>2</sub>
1884..	1.25	1.50	1.50	1.61 <sup>1</sup> / <sub>2</sub>	1.50	1.71 <sup>1</sup> / <sub>2</sub>	1.50	.....	.....	1.50	1.50	2.00	1.55 <sup>3</sup> / <sub>4</sub>
1885..	1.25	1.50	1.50	1.53 <sup>3</sup> / <sub>4</sub>	1.50	1.68 <sup>3</sup> / <sub>4</sub>	1.50	.....	.....	1.50	1.50	2.00	1.54 <sup>3</sup> / <sub>4</sub>
1886..	1.25	1.50	1.50	1.55 <sup>3</sup> / <sub>4</sub>	1.50	1.64 <sup>3</sup> / <sub>4</sub>	1.50	.....	.....	1.50	1.50	2.00	1.54 <sup>1</sup> / <sub>2</sub>
1887..	1.25	1.50	1.50	1.55 <sup>3</sup> / <sub>4</sub>	1.75	1.65 <sup>1</sup> / <sub>2</sub>	1.50	.....	.....	1.50	1.50	2.00	1.57 <sup>1</sup> / <sub>4</sub>
1888..	1.25	1.45 <sup>3</sup> / <sub>4</sub>	1.50 <sup>1</sup> / <sub>2</sub>	1.53 <sup>1</sup> / <sub>4</sub>	1.75	1.65	1.50	.....	.....	1.50	1.50	2.00	1.56 <sup>3</sup> / <sub>4</sub>
1889..	1.25	1.46 <sup>1</sup> / <sub>2</sub>	1.50 <sup>1</sup> / <sub>2</sub>	1.52 <sup>1</sup> / <sub>4</sub>	1.75	1.61 <sup>3</sup> / <sub>4</sub>	1.50	.....	.....	1.50	1.64 <sup>3</sup> / <sub>4</sub>	1.97 <sup>1</sup> / <sub>4</sub>	1.57 <sup>1</sup> / <sub>4</sub>
1890..	1.25	1.46 <sup>1</sup> / <sub>2</sub>	1.50 <sup>3</sup> / <sub>4</sub>	1.54 <sup>1</sup> / <sub>2</sub>	1.50	1.71 <sup>1</sup> / <sub>4</sub>	1.50	.....	.....	1.50	1.64 <sup>3</sup> / <sub>4</sub>	1.86 <sup>3</sup> / <sub>4</sub>	1.55
1891..	1.25	1.44 <sup>3</sup> / <sub>4</sub>	1.50 <sup>3</sup> / <sub>4</sub>	1.57 <sup>3</sup> / <sub>4</sub>	1.50	1.66 <sup>1</sup> / <sub>4</sub>	1.50	.....	.....	1.50	1.64 <sup>3</sup> / <sub>4</sub>	1.84 <sup>1</sup> / <sub>2</sub>	1.54 <sup>1</sup> / <sub>4</sub>
1892..	1.25	1.42	1.50 <sup>3</sup> / <sub>4</sub>	1.63 <sup>3</sup> / <sub>4</sub>	1.50	1.72	1.50	.....	.....	1.50	1.50	1.55 <sup>3</sup> / <sub>4</sub>	1.51
1893..	1.25	1.46 <sup>1</sup> / <sub>2</sub>	1.50 <sup>3</sup> / <sub>4</sub>	1.77 <sup>3</sup> / <sub>4</sub>	1.50	1.72 <sup>3</sup> / <sub>4</sub>	1.50	.....	.....	1.50	1.50	1.73 <sup>1</sup> / <sub>4</sub>	1.54 <sup>1</sup> / <sub>2</sub>
1894..	1.25	1.43 <sup>1</sup> / <sub>2</sub>	1.50	1.63 <sup>1</sup> / <sub>4</sub>	1.25	1.57 <sup>1</sup> / <sub>4</sub>	1.50	.....	.....	1.50	1.50	1.75	1.49
1895..	1.25	1.37 <sup>1</sup> / <sub>2</sub>	1.50	1.64	1.25	1.52 <sup>3</sup> / <sub>4</sub>	1.50	.....	.....	1.50	1.50	1.76 <sup>1</sup> / <sub>4</sub>	1.48
1896..	1.25	1.44 <sup>1</sup> / <sub>2</sub>	1.50	1.64	1.25	1.56 <sup>3</sup> / <sub>4</sub>	1.50	.....	.....	1.50	1.50	1.71 <sup>3</sup> / <sub>4</sub>	1.48 <sup>3</sup> / <sub>4</sub>
1897..	1.25	1.43 <sup>3</sup> / <sub>4</sub>	1.50	1.55 <sup>1</sup> / <sub>4</sub>	1.25	1.51 <sup>3</sup> / <sub>4</sub>	1.50	.....	.....	1.50	1.50	1.58 <sup>1</sup> / <sub>2</sub>	1.46
1898..	1.25	1.37 <sup>1</sup> / <sub>2</sub>	1.50	1.42 <sup>1</sup> / <sub>2</sub>	1.25	1.63 <sup>1</sup> / <sub>4</sub>	1.50	.....	.....	1.50	1.50	1.59	1.45 <sup>1</sup> / <sub>4</sub>

MACHINISTS.

1870..	1.86 <sup>1</sup> / <sub>4</sub>	2.47 <sup>1</sup> / <sub>4</sub>	2.69 <sup>1</sup> / <sub>2</sub>	2.42 <sup>1</sup> / <sub>4</sub>	3.12 <sup>3</sup> / <sub>4</sub>	2.26 <sup>3</sup> / <sub>4</sub>	1.79 <sup>3</sup> / <sub>4</sub>	\$1.71 <sup>3</sup> / <sub>4</sub>	\$1.85 <sup>1</sup> / <sub>2</sub>	1.81 <sup>3</sup> / <sub>4</sub>	2.23 <sup>1</sup> / <sub>2</sub>	3.36 <sup>3</sup> / <sub>4</sub>	2.30 <sup>1</sup> / <sub>4</sub>
1871..	2.04 <sup>1</sup> / <sub>4</sub>	2.55 <sup>1</sup> / <sub>4</sub>	2.92	2.67 <sup>1</sup> / <sub>2</sub>	3.38 <sup>3</sup> / <sub>4</sub>	2.28	2.06 <sup>1</sup> / <sub>4</sub>	1.88 <sup>1</sup> / <sub>2</sub>	2.03 <sup>1</sup> / <sub>4</sub>	2.11 <sup>1</sup> / <sub>2</sub>	2.45	3.17 <sup>3</sup> / <sub>4</sub>	2.46 <sup>1</sup> / <sub>2</sub>
1872..	2.07 <sup>1</sup> / <sub>4</sub>	2.56 <sup>3</sup> / <sub>4</sub>	2.92 <sup>1</sup> / <sub>2</sub>	2.68 <sup>1</sup> / <sub>2</sub>	3.39 <sup>3</sup> / <sub>2</sub>	2.40 <sup>1</sup> / <sub>4</sub>	2.20 <sup>1</sup> / <sub>2</sub>	1.68 <sup>1</sup> / <sub>2</sub>	2.06 <sup>1</sup> / <sub>4</sub>	2.10 <sup>1</sup> / <sub>4</sub>	2.48 <sup>3</sup> / <sub>4</sub>	3.17 <sup>3</sup> / <sub>4</sub>	2.48
1873..	2.03	2.61 <sup>3</sup> / <sub>4</sub>	2.84 <sup>3</sup> / <sub>4</sub>	2.65	3.08 <sup>1</sup> / <sub>2</sub>	2.28 <sup>1</sup> / <sub>2</sub>	2.19 <sup>1</sup> / <sub>2</sub>	1.71 <sup>1</sup> / <sub>2</sub>	1.99 <sup>3</sup> / <sub>4</sub>	1.94 <sup>3</sup> / <sub>4</sub>	2.40 <sup>3</sup> / <sub>4</sub>	3.17 <sup>1</sup> / <sub>2</sub>	2.41 <sup>1</sup> / <sub>4</sub>
1874..	2.07 <sup>3</sup> / <sub>4</sub>	2.58	2.70 <sup>3</sup> / <sub>4</sub>	2.48 <sup>3</sup> / <sub>4</sub>	3.16 <sup>3</sup> / <sub>4</sub>	2.31 <sup>1</sup> / <sub>4</sub>	2.38 <sup>3</sup> / <sub>4</sub>	1.73 <sup>1</sup> / <sub>2</sub>	1.90 <sup>3</sup> / <sub>4</sub>	2.02	2.40 <sup>1</sup> / <sub>4</sub>	3.13	2.41 <sup>1</sup> / <sub>4</sub>
1875..	2.05 <sup>3</sup> / <sub>4</sub>	2.37 <sup>3</sup> / <sub>4</sub>	2.63 <sup>1</sup> / <sub>4</sub>	2.37 <sup>1</sup> / <sub>2</sub>	2.94 <sup>1</sup> / <sub>2</sub>	2.33 <sup>1</sup> / <sub>4</sub>	2.08 <sup>1</sup> / <sub>4</sub>	1.66 <sup>1</sup> / <sub>4</sub>	1.89	2.06 <sup>1</sup> / <sub>4</sub>	2.37 <sup>3</sup> / <sub>4</sub>	3.10 <sup>1</sup> / <sub>2</sub>	2.32 <sup>1</sup> / <sub>2</sub>
1876..	2.06 <sup>1</sup> / <sub>2</sub>	2.19 <sup>1</sup> / <sub>2</sub>	2.50	2.21 <sup>1</sup> / <sub>2</sub>	2.32 <sup>1</sup> / <sub>2</sub>	2.30 <sup>1</sup> / <sub>2</sub>	1.95 <sup>1</sup> / <sub>4</sub>	1.64 <sup>3</sup> / <sub>4</sub>	1.88 <sup>1</sup> / <sub>2</sub>	2.06	2.36	3.12 <sup>3</sup> / <sub>4</sub>	2.22
1877..	2.19 <sup>1</sup> / <sub>2</sub>	2.30 <sup>3</sup> / <sub>4</sub>	2.58	2.19	2.58 <sup>1</sup> / <sub>2</sub>	2.47 <sup>1</sup> / <sub>4</sub>	2.06 <sup>3</sup> / <sub>4</sub>	1.81 <sup>1</sup> / <sub>2</sub>	2.00	2.17	2.50 <sup>3</sup> / <sub>4</sub>	3.05	2.32 <sup>3</sup> / <sub>4</sub>
1878..	2.29 <sup>3</sup> / <sub>4</sub>	2.29 <sup>1</sup> / <sub>4</sub>	2.67 <sup>3</sup> / <sub>4</sub>	2.14 <sup>1</sup> / <sub>2</sub>	2.78 <sup>3</sup> / <sub>4</sub>	2.49	2.06 <sup>3</sup> / <sub>4</sub>	1.83	2.09 <sup>1</sup> / <sub>2</sub>	2.48 <sup>1</sup> / <sub>4</sub>	2.62	3.03 <sup>3</sup> / <sub>4</sub>	2.40 <sup>1</sup> / <sub>4</sub>
1879..	2.33	2.37 <sup>1</sup> / <sub>2</sub>	2.68 <sup>1</sup> / <sub>2</sub>	2.06	2.69	2.47 <sup>1</sup> / <sub>2</sub>	1.97 <sup>1</sup> / <sub>2</sub>	1.85 <sup>1</sup> / <sub>2</sub>	2.12 <sup>1</sup> / <sub>2</sub>	2.52 <sup>3</sup> / <sub>4</sub>	2.65 <sup>3</sup> / <sub>4</sub>	2.95 <sup>3</sup> / <sub>4</sub>	2.39 <sup>1</sup> / <sub>4</sub>
1880..	2.28 <sup>3</sup> / <sub>4</sub>	2.42 <sup>1</sup> / <sub>2</sub>	2.73 <sup>1</sup> / <sub>2</sub>	2.25 <sup>1</sup> / <sub>4</sub>	2.72	2.52 <sup>1</sup> / <sub>2</sub>	2.01 <sup>3</sup> / <sub>4</sub>	2.05 <sup>1</sup> / <sub>4</sub>	2.12 <sup>1</sup> / <sub>2</sub>	2.47 <sup>1</sup> / <sub>4</sub>	2.65 <sup>3</sup> / <sub>4</sub>	3.02 <sup>3</sup> / <sub>4</sub>	2.44 <sup>1</sup> / <sub>4</sub>
1881..	2.26 <sup>1</sup> / <sub>2</sub>	2.50	2.73 <sup>1</sup> / <sub>2</sub>	2.44	2.70	2.47 <sup>1</sup> / <sub>2</sub>	2.16	2.10 <sup>3</sup> / <sub>4</sub>	2.12 <sup>1</sup> / <sub>2</sub>	2.46 <sup>1</sup> / <sub>4</sub>	2.66 <sup>1</sup> / <sub>4</sub>	3.03 <sup>1</sup> / <sub>4</sub>	2.47 <sup>1</sup> / <sub>4</sub>
1882..	2.26 <sup>1</sup> / <sub>4</sub>	2.55	2.78	2.47 <sup>1</sup> / <sub>2</sub>	2.74 <sup>1</sup> / <sub>2</sub>	2.85	2.26 <sup>1</sup> / <sub>2</sub>	2.08 <sup>1</sup> / <sub>4</sub>	1.75	2.46	2.67	3.07	2.49 <sup>3</sup> / <sub>4</sub>
1883..	2.30 <sup>3</sup> / <sub>4</sub>	2.57 <sup>1</sup> / <sub>2</sub>	2.76 <sup>1</sup> / <sub>2</sub>	2.51 <sup>1</sup> / <sub>2</sub>	2.76 <sup>1</sup> / <sub>2</sub>	2.55	2.33 <sup>1</sup> / <sub>2</sub>	2.05 <sup>3</sup> / <sub>4</sub>	1.75	2.48 <sup>1</sup> / <sub>4</sub>	2.66 <sup>3</sup> / <sub>4</sub>	3.10 <sup>1</sup> / <sub>2</sub>	2.49
1884..	2.30 <sup>3</sup> / <sub>4</sub>	2.65	2.75	2.53 <sup>3</sup> / <sub>4</sub>	2.85 <sup>3</sup> / <sub>4</sub>	2.82 <sup>1</sup> / <sub>2</sub>	2.36 <sup>3</sup> / <sub>4</sub>	2.06 <sup>1</sup> / <sub>4</sub>	1.75	2.46 <sup>1</sup> / <sub>4</sub>	2.65 <sup>3</sup> / <sub>4</sub>	3.09 <sup>3</sup> / <sub>4</sub>	2.52 <sup>3</sup> / <sub>4</sub>
1885..	2.30 <sup>3</sup> / <sub>4</sub>	2.52 <sup>1</sup> / <sub>2</sub>	2.76 <sup>1</sup> / <sub>4</sub>	2.40	2.90	2.50	2.33 <sup>1</sup> / <sub>2</sub>	2.13 <sup>1</sup> / <sub>2</sub>	1.75	2.43 <sup>1</sup> / <sub>2</sub>	2.66	3.12 <sup>3</sup> / <sub>4</sub>	2.48 <sup>3</sup> / <sub>4</sub>
1886..	2.30 <sup>3</sup> / <sub>4</sub>	2.52 <sup>1</sup> / <sub>2</sub>	2.75	2.40 <sup>1</sup> / <sub>2</sub>	2.90	2.62 <sup>1</sup> / <sub>2</sub>	2.25 <sup>3</sup> / <sub>4</sub>	2.13 <sup>3</sup> / <sub>4</sub>	1.75	2.36 <sup>3</sup> / <sub>4</sub>	2.64	3.15 <sup>1</sup> / <sub>4</sub>	2.48 <sup>1</sup> / <sub>2</sub>
1887..	2.30 <sup>3</sup> / <sub>4</sub>	2.60	2.85 <sup>3</sup> / <sub>4</sub>	2.40 <sup>1</sup> / <sub>2</sub>	2.83 <sup>1</sup> / <sub>4</sub>	2.70	2.33 <sup>3</sup> / <sub>4</sub>	2.13 <sup>1</sup> / <sub>4</sub>	1.75	2.48 <sup>3</sup> / <sub>4</sub>	2.65 <sup>3</sup> / <sub>4</sub>	3.14	2.51 <sup>3</sup> / <sub>4</sub>
1888..	2.30 <sup>3</sup> / <sub>4</sub>	2.47 <sup>1</sup> / <sub>2</sub>	2.86	2.42 <sup>3</sup> / <sub>4</sub>	2.91 <sup>3</sup> / <sub>4</sub>	2.75	2.35	2.13 <sup>1</sup> / <sub>4</sub>	1.75	2.43 <sup>1</sup> / <sub>2</sub>	2.65 <sup>1</sup> / <sub>4</sub>	3.15 <sup>3</sup> / <sub>4</sub>	2.51 <sup>3</sup> / <sub>4</sub>
1889..	2.31 <sup>1</sup> / <sub>2</sub>	2.55	2.85 <sup>1</sup> / <sub>2</sub>	2.43 <sup>1</sup> / <sub>4</sub>	2.91 <sup>3</sup> / <sub>4</sub>	2.70	2.37 <sup>1</sup> / <sub>2</sub>	2.06 <sup>1</sup> / <sub>4</sub>	1.75	2.52 <sup>3</sup> / <sub>4</sub>	2.67	3.17 <sup>3</sup> / <sub>4</sub>	2.52 <sup>3</sup> / <sub>4</sub>
1890..	2.31 <sup>1</sup> / <sub>2</sub>	2.57 <sup>1</sup> / <sub>2</sub>	2.85 <sup>1</sup> / <sub>4</sub>	2.44	2.91 <sup>3</sup> / <sub>4</sub>	2.70	2.29 <sup>3</sup> / <sub>4</sub>	1.99	1.75	2.44 <sup>1</sup> / <sub>4</sub>	2.93 <sup>1</sup> / <sub>2</sub>	2.92 <sup>1</sup> / <sub>4</sub>	2.51 <sup>1</sup> / <sub>2</sub>
1891..	2.31 <sup>1</sup> / <sub>2</sub>	2.45	2.85 <sup>1</sup> / <sub>2</sub>	2.43 <sup>1</sup> / <sub>4</sub>	2.91 <sup>3</sup> / <sub>4</sub>	2.67 <sup>1</sup> / <sub>2</sub>	2.38	1.98 <sup>3</sup> / <sub>4</sub>	1.75	2.47	2.92 <sup>1</sup> / <sub>4</sub>	2.92 <sup>3</sup> / <sub>4</sub>	2.50 <sup>3</sup> / <sub>4</sub>
1892..	2.31 <sup>1</sup> / <sub>2</sub>	2.57 <sup>1</sup> / <sub>2</sub>	2.83 <sup>1</sup> / <sub>4</sub>	2.48 <sup>1</sup> / <sub>2</sub>	2.91 <sup>3</sup> / <sub>4</sub>	2.65	2.36	2.06 <sup>1</sup> / <sub>2</sub>	1.75	2.46 <sup>3</sup> / <sub>4</sub>	2.91 <sup>1</sup> / <sub>4</sub>	2.90 <sup>1</sup> / <sub>2</sub>	2.52
1893..	2.31 <sup>1</sup> / <sub>2</sub>	2.72 <sup>1</sup> / <sub>2</sub>	2.91 <sup>1</sup> / <sub>4</sub>	2.40 <sup>1</sup> / <sub>4</sub>	2.91 <sup>3</sup> / <sub>4</sub>	2.62 <sup>1</sup> / <sub>2</sub>	2.36 <sup>1</sup> / <sub>2</sub>	2.13 <sup>1</sup> / <sub>2</sub>	1.37 <sup>1</sup> / <sub>2</sub>	2.46	2.70	2.87 <sup>1</sup> / <sub>2</sub>	2.48 <sup>1</sup> / <sub>2</sub>
1894..	2.26 <sup>1</sup> / <sub>4</sub>	2.57 <sup>1</sup> / <sub>2</sub>	2.75	2.04 <sup>1</sup> / <sub>2</sub>	2.90	2.65	2.27	1.98 <sup>3</sup> / <sub>4</sub>	1.37 <sup>1</sup> / <sub>2</sub>	2.51	2.69 <sup>1</sup> / <sub>2</sub>	2.79 <sup>1</sup> / <sub>4</sub>	2.40
1895..	2.21 <sup>1</sup> / <sub>4</sub>	2.57 <sup>1</sup> / <sub>2</sub>	2.78 <sup>1</sup> / <sub>2</sub>	2.05 <sup>1</sup> / <sub>4</sub>	2.90	2.47 <sup>1</sup> / <sub>2</sub>	2.20 <sup>1</sup> / <sub>2</sub>	1.98 <sup>1</sup> / <sub>2</sub>	1.37 <sup>1</sup> / <sub>2</sub>	2.49 <sup>1</sup> / <sub>2</sub>	2.66	2.83 <sup>3</sup> / <sub>4</sub>	2.38
1896..	2.21 <sup>1</sup> / <sub>4</sub>	2.50	2.78 <sup>1</sup> / <sub>2</sub>	2.05 <sup>1</sup> / <sub>4</sub>	2.90	2.55	2.41	2.08	1.37 <sup>1</sup> / <sub>2</sub>	2.52 <sup>1</sup> / <sub>2</sub>	2.62 <sup>1</sup> / <sub>2</sub>	2.83 <sup>1</sup> / <sub>2</sub>	2.40 <sup>1</sup> / <sub>2</sub>
1897..	2.23 <sup>3</sup> / <sub>4</sub>	2.62 <sup>1</sup> / <sub>2</sub>	2.80	2.13 <sup>1</sup> / <sub>4</sub>	2.90	2.55	2.25 <sup>3</sup> / <sub>4</sub>	2.12 <sup>1</sup> / <sub>4</sub>	1.37 <sup>1</sup> / <sub>2</sub>	2.50 <sup>3</sup> / <sub>4</sub>	2.66 <sup>1</sup> / <sub>2</sub>	2.85	2.42
1898..	2.21 <sup>1</sup> / <sub>2</sub>	2.57 <sup>1</sup> / <sub>2</sub>	2.80 <sup>3</sup> / <sub>4</sub>	2.15 <sup>3</sup> / <sub>4</sub>	2.90	2.62 <sup>1</sup> / <sub>2</sub>	2.32	2.02	1.37 <sup>1</sup> / <sub>2</sub>	2.42	2.66 <sup>1</sup> / <sub>4</sub>	2.84 <sup>1</sup> / <sub>2</sub>	2.41



TABLE I.—AVERAGE DAILY WAGES IN GOLD IN CERTAIN CITIES OF THE UNITED STATES, 1870 TO 1898—Continued.

the American Almanac for 1879, have been used, as follows: 1870, \$121.3; 1871, \$110.7; 1872, \$109.1; 1873, \$112.7; 1874, \$111.4; 1875, \$112.5; 1876, \$112.8; 1877, \$106.2, and 1878, \$101.4.]

## MACHINISTS' HELPERS.

Year.	Balti- more.	Bos- ton.	Chi- cago.	Cin- cin- nati.	New Or- leans.	New York.	Phila- del- phia.	Pitts- burg and Alle- gheny.	Rich- mond.	St. Louis.	St. Paul.	San Fran- cisco.	Aver- age.
1870..	\$1.13 $\frac{1}{2}$	\$1.15 $\frac{1}{2}$	\$1.58 $\frac{3}{4}$	\$1.45 $\frac{3}{4}$	\$1.59	\$1.54 $\frac{1}{2}$	\$1.18 $\frac{3}{4}$	.....	\$0.92 $\frac{3}{4}$	\$0.45 $\frac{3}{4}$	\$1.45 $\frac{1}{2}$	\$2.25	\$1.34
1871..	1.24 $\frac{1}{2}$	1.28 $\frac{3}{4}$	1.71 $\frac{1}{2}$	1.61 $\frac{1}{2}$	1.80 $\frac{3}{4}$	1.67	1.29 $\frac{1}{2}$	.....	1.01 $\frac{3}{4}$	.55 $\frac{1}{2}$	1.59 $\frac{1}{2}$	2.02 $\frac{1}{2}$	1.43 $\frac{3}{4}$
1872..	1.26	1.37 $\frac{1}{2}$	1.74	1.66	1.83 $\frac{1}{2}$	1.69 $\frac{1}{2}$	1.40 $\frac{1}{2}$	.....	1.03	.53 $\frac{1}{2}$	1.61 $\frac{1}{2}$	2.02 $\frac{1}{2}$	1.47
1873..	1.22	1.18 $\frac{1}{2}$	1.70 $\frac{1}{2}$	1.55 $\frac{1}{2}$	1.77	1.59	1.38	.....	.99 $\frac{3}{4}$	.58	1.56 $\frac{1}{2}$	1.89	1.40 $\frac{1}{2}$
1874..	1.23 $\frac{1}{2}$	1.49 $\frac{1}{2}$	1.59	1.64 $\frac{1}{2}$	1.79	1.57	1.34 $\frac{1}{2}$	.....	.85 $\frac{1}{4}$	.54 $\frac{1}{2}$	1.56 $\frac{1}{2}$	1.89	1.41 $\frac{1}{2}$
1875..	1.22 $\frac{1}{2}$	1.42 $\frac{1}{2}$	1.51	1.60	1.77	1.57	1.19 $\frac{3}{4}$	.....	.84 $\frac{1}{2}$	.51	1.55	1.91 $\frac{1}{2}$	1.37 $\frac{1}{2}$
1876..	1.22	1.37 $\frac{1}{2}$	1.44 $\frac{1}{2}$	1.55 $\frac{1}{2}$	1.41	1.41	1.17 $\frac{1}{2}$	.....	.84 $\frac{1}{2}$	.59 $\frac{1}{2}$	1.53 $\frac{1}{2}$	1.89	1.31 $\frac{1}{2}$
1877..	1.29 $\frac{1}{2}$	1.39	1.48	1.51 $\frac{1}{2}$	1.50 $\frac{3}{4}$	1.43 $\frac{1}{2}$	1.22	.....	.89 $\frac{1}{2}$	.58 $\frac{1}{2}$	1.63	1.86 $\frac{3}{4}$	1.34 $\frac{3}{4}$
1878..	1.35	1.45 $\frac{1}{2}$	1.55	1.62	1.57	1.50 $\frac{1}{2}$	1.35	.....	.93 $\frac{3}{4}$	.70	1.70 $\frac{1}{2}$	1.86 $\frac{3}{4}$	1.42
1879..	1.37 $\frac{1}{2}$	1.47 $\frac{1}{2}$	1.47 $\frac{1}{2}$	1.44	1.60	1.55	1.40 $\frac{1}{2}$	.....	.95	.70	1.72	1.86 $\frac{3}{4}$	1.41 $\frac{1}{2}$
1880..	1.37 $\frac{1}{2}$	1.50	1.53	1.58 $\frac{1}{2}$	1.53 $\frac{1}{2}$	1.70	1.32 $\frac{1}{2}$	.....	.95	.64 $\frac{1}{2}$	1.72	1.91 $\frac{1}{2}$	1.43 $\frac{1}{2}$
1881..	1.37 $\frac{1}{2}$	1.50	1.65	1.55 $\frac{1}{2}$	1.45	1.75	1.37	.....	.95	.58 $\frac{1}{2}$	1.72	1.93 $\frac{1}{2}$	1.44
1882..	1.37 $\frac{1}{2}$	1.50	1.66	1.55 $\frac{1}{2}$	1.43	2.10	1.34	.....	.90	.63	1.73 $\frac{1}{2}$	2.00	1.47 $\frac{1}{2}$
1883..	1.37 $\frac{1}{2}$	1.52 $\frac{1}{2}$	1.58	1.59	1.50	1.52 $\frac{1}{2}$	1.32 $\frac{1}{2}$	.....	.90	.65 $\frac{3}{4}$	1.73 $\frac{3}{4}$	2.02	1.43
1884..	1.37 $\frac{1}{2}$	1.52 $\frac{1}{2}$	1.62	1.63	1.50	1.60	1.38 $\frac{1}{2}$	.....	.90	.66	1.72 $\frac{3}{4}$	2.04	1.45 $\frac{1}{2}$
1885..	1.37 $\frac{1}{2}$	1.52 $\frac{1}{2}$	1.59	1.51 $\frac{3}{4}$	1.50	1.57 $\frac{1}{2}$	1.41 $\frac{1}{2}$	.....	.90	.64 $\frac{3}{4}$	1.72 $\frac{3}{4}$	2.04	1.43 $\frac{3}{4}$
1886..	1.37 $\frac{1}{2}$	1.52 $\frac{1}{2}$	1.60	1.52	1.75	1.27 $\frac{1}{2}$	1.35	.....	.90	.63 $\frac{3}{4}$	1.71 $\frac{3}{4}$	2.04	1.42 $\frac{3}{4}$
1887..	1.37 $\frac{1}{2}$	1.52	1.65	1.47 $\frac{1}{2}$	1.50	1.85	1.37 $\frac{1}{4}$	.....	.90	.62 $\frac{3}{4}$	1.73	2.07	1.46 $\frac{1}{4}$
1888..	1.37 $\frac{1}{2}$	1.57 $\frac{1}{2}$	1.65	1.46 $\frac{1}{2}$	1.50	1.80	1.43	.....	.90	.66	1.72 $\frac{1}{2}$	2.04	1.46 $\frac{3}{4}$
1889..	1.37 $\frac{1}{2}$	1.52 $\frac{1}{2}$	1.64	1.42	1.50	1.85	1.42 $\frac{1}{2}$	.....	.90	.66 $\frac{1}{4}$	1.73	2.09 $\frac{1}{4}$	1.46 $\frac{3}{4}$
1890..	1.37 $\frac{1}{2}$	1.52 $\frac{1}{2}$	1.64	1.47 $\frac{1}{4}$	1.50	1.50	1.41	.....	.87 $\frac{1}{2}$	.64 $\frac{1}{2}$	1.99 $\frac{1}{2}$	1.88	1.43 $\frac{3}{4}$
1891..	1.37 $\frac{1}{2}$	1.55	1.64	1.42 $\frac{3}{4}$	1.50	1.45	1.41 $\frac{1}{2}$	.....	.87 $\frac{1}{2}$	.61 $\frac{3}{4}$	1.99 $\frac{1}{4}$	1.88	1.43
1892..	1.37 $\frac{1}{2}$	1.60	1.64	1.49 $\frac{1}{2}$	1.50	1.47 $\frac{1}{2}$	1.43	.....	.87 $\frac{1}{2}$	.66 $\frac{1}{2}$	1.98 $\frac{1}{2}$	1.84	1.44 $\frac{1}{2}$
1893..	1.37 $\frac{1}{2}$	1.27 $\frac{1}{2}$	1.73	1.51	1.50	1.42 $\frac{1}{2}$	1.47 $\frac{3}{4}$	.....	.82 $\frac{1}{2}$	.63	1.75 $\frac{3}{4}$	1.82	1.39 $\frac{3}{4}$
1894..	1.37 $\frac{1}{2}$	1.57 $\frac{1}{2}$	1.58	1.35 $\frac{1}{2}$	1.50	1.52 $\frac{1}{2}$	1.37 $\frac{3}{4}$	.....	.82 $\frac{1}{2}$	.67 $\frac{1}{2}$	1.75 $\frac{1}{2}$	1.78	1.39 $\frac{1}{2}$
1895..	1.37 $\frac{1}{2}$	1.60	1.60	1.35 $\frac{1}{2}$	1.50	1.32 $\frac{1}{2}$	1.29 $\frac{1}{4}$	.....	.82 $\frac{1}{2}$	.63 $\frac{1}{2}$	1.73 $\frac{1}{2}$	1.82	1.37
1896..	1.37 $\frac{1}{2}$	1.57 $\frac{1}{2}$	1.60	1.17 $\frac{3}{4}$	1.50	1.10	1.35	.....	.82 $\frac{1}{2}$	.65 $\frac{3}{4}$	1.71 $\frac{3}{4}$	1.80	1.33 $\frac{1}{2}$
1897..	1.37 $\frac{1}{2}$	1.65	1.63	1.19 $\frac{3}{4}$	1.50	1.00	1.38 $\frac{3}{4}$	.....	.82 $\frac{1}{2}$	.65 $\frac{3}{4}$	1.73 $\frac{3}{4}$	1.84	1.34 $\frac{1}{2}$
1898..	1.37 $\frac{1}{2}$	1.70	1.64	1.19 $\frac{3}{4}$	1.50	1.10	1.34 $\frac{1}{2}$	.....	.82 $\frac{1}{2}$	.64 $\frac{1}{2}$	1.73 $\frac{3}{4}$	1.84	1.35 $\frac{1}{2}$

## MASONS, STONE.

1870..	3.46 $\frac{1}{2}$	.....	2.74 $\frac{3}{4}$	2.47 $\frac{1}{2}$	.....	2.88 $\frac{1}{2}$	2.30 $\frac{3}{4}$	\$2.56	2.88 $\frac{1}{2}$	1.85 $\frac{1}{2}$	1.85 $\frac{1}{2}$	5.00	2.80 $\frac{1}{2}$
1871..	3.79 $\frac{1}{2}$	.....	4.51 $\frac{3}{4}$	2.71	.....	3.16 $\frac{1}{2}$	2.55 $\frac{3}{4}$	2.72 $\frac{1}{2}$	4.06 $\frac{1}{2}$	2.03 $\frac{1}{2}$	2.03 $\frac{1}{2}$	5.00	3.26
1872..	3.87 $\frac{3}{4}$	.....	4.58 $\frac{1}{2}$	2.75	.....	3.20 $\frac{3}{4}$	3.20 $\frac{3}{4}$	3.05 $\frac{3}{4}$	4.12	2.06 $\frac{1}{2}$	2.06 $\frac{1}{2}$	5.00	3.39 $\frac{1}{2}$
1873..	3.77	.....	3.10 $\frac{3}{4}$	3.10 $\frac{1}{2}$	.....	3.10 $\frac{3}{4}$	3.10 $\frac{3}{4}$	2.93 $\frac{1}{2}$	3.99	1.99 $\frac{3}{4}$	1.99 $\frac{3}{4}$	5.00	3.21
1874..	2.95 $\frac{1}{2}$	.....	2.24 $\frac{1}{2}$	2.91 $\frac{3}{4}$	.....	2.69 $\frac{1}{2}$	3.14 $\frac{1}{2}$	2.91 $\frac{3}{4}$	3.14	2.02	2.02	5.00	2.90 $\frac{3}{4}$
1875..	2.92 $\frac{3}{4}$	.....	2.22	2.66 $\frac{3}{4}$	.....	2.66 $\frac{3}{4}$	3.11	2.44 $\frac{1}{2}$	3.11	2.00	2.00	5.00	2.81 $\frac{1}{2}$
1876..	3.22 $\frac{1}{2}$	.....	2.66	2.55 $\frac{3}{4}$	.....	2.21	3.10 $\frac{1}{2}$	1.99	3.10	3.54 $\frac{1}{2}$	1.99 $\frac{1}{2}$	5.00	2.94
1877..	3.45 $\frac{1}{2}$	.....	2.82 $\frac{1}{2}$	1.94	.....	1.88 $\frac{1}{2}$	3.29	1.88 $\frac{1}{2}$	3.29	3.76 $\frac{1}{2}$	2.11	5.00	2.94 $\frac{1}{2}$
1878..	3.51	.....	2.95	2.12	.....	1.97 $\frac{1}{4}$	2.19 $\frac{1}{2}$	1.85	3.45	3.94 $\frac{1}{2}$	2.85	4.88 $\frac{1}{2}$	2.97 $\frac{1}{2}$
1879..	3.56	.....	3.50	2.00	.....	2.50	1.87 $\frac{3}{4}$	2.60	3.50	4.00	2.89	4.83	3.06 $\frac{3}{4}$
1880..	3.77	.....	3.50	2.18 $\frac{3}{4}$	.....	2.50	1.66 $\frac{3}{4}$	2.19 $\frac{1}{2}$	3.50	4.00	2.89	4.89	3.11 $\frac{1}{4}$
1881..	3.68 $\frac{1}{2}$	.....	3.50	2.98 $\frac{1}{4}$	.....	3.00	2.30	3.00	3.50	4.00	3.50	4.95	3.44 $\frac{1}{4}$
1882..	3.61 $\frac{1}{2}$	.....	3.50	2.98	.....	3.50	2.59	3.08 $\frac{3}{4}$	3.50	4.00	3.50	4.93	3.52
1883..	3.60 $\frac{3}{4}$	.....	3.50	3.19 $\frac{1}{2}$	.....	3.50	2.00	3.30	3.50	4.00	3.50	4.91	3.50 $\frac{1}{2}$
1884..	3.56 $\frac{3}{4}$	.....	3.50	3.18 $\frac{1}{4}$	.....	3.50	3.30	3.30	3.50	4.00	3.50	4.91	3.62 $\frac{1}{2}$
1885..	3.57 $\frac{1}{2}$	.....	4.00	3.14	.....	3.25	2.83 $\frac{1}{4}$	3.30	3.50	4.00	3.50	4.91 $\frac{3}{4}$	3.60 $\frac{1}{2}$
1886..	3.86 $\frac{1}{2}$	.....	4.00	2.87	.....	3.50	2.04 $\frac{1}{2}$	3.30	3.50	4.00	3.50	4.94 $\frac{3}{4}$	3.55 $\frac{1}{2}$
1887..	3.83 $\frac{1}{2}$	.....	4.00	3.24	.....	3.50	2.50	3.26 $\frac{3}{4}$	3.00	4.00	3.50	4.89 $\frac{1}{4}$	3.57 $\frac{1}{4}$
1888..	3.95 $\frac{1}{2}$	.....	4.00	3.24	.....	3.50	2.21 $\frac{1}{2}$	3.25 $\frac{3}{4}$	3.00	4.00	3.50	4.83 $\frac{1}{2}$	3.55
1889..	3.77	.....	4.00	3.24	.....	3.50	2.00	3.32	3.00	4.00	3.50	4.84 $\frac{3}{4}$	3.51 $\frac{3}{4}$
1890..	3.98 $\frac{1}{2}$	.....	4.00	3.60	.....	4.00	2.58 $\frac{1}{2}$	3.63 $\frac{1}{2}$	3.00	4.00	3.50	4.80	3.71
1891..	3.98 $\frac{1}{2}$	.....	4.00	3.54 $\frac{3}{4}$	.....	4.00	2.85 $\frac{3}{4}$	3.60	3.00	4.00	3.50	4.85 $\frac{3}{4}$	3.73 $\frac{1}{2}$
1892..	3.94 $\frac{1}{2}$	.....	4.00	3.60	.....	4.00	3.12 $\frac{1}{2}$	3.59	3.00	4.00	2.40	4.38 $\frac{1}{2}$	3.60 $\frac{1}{2}$
1893..	3.94 $\frac{1}{2}$	.....	4.00	3.60	.....	4.00	3.09	3.78	3.00	4.00	2.36	4.40	3.61 $\frac{3}{4}$
1894..	4.11	.....	4.00	3.20	.....	4.00	2.40	3.01 $\frac{1}{2}$	3.00	4.00	2.36 $\frac{1}{2}$	4.41 $\frac{3}{4}$	3.45
1895..	3.12 $\frac{1}{2}$	.....	4.00	3.20	.....	4.00	2.59 $\frac{1}{2}$	3.38 $\frac{3}{4}$	3.00	3.60	2.36 $\frac{3}{4}$	4.43 $\frac{3}{4}$	3.37
1896..	3.11	.....	4.00	3.20	.....	4.00	2.83	3.15	3.00	3.60	2.39 $\frac{3}{4}$	4.37 $\frac{3}{4}$	3.36 $\frac{1}{2}$
1897..	3.12 $\frac{1}{2}$	.....	4.00	2.56	.....	4.00	2.68 $\frac{1}{2}$	3.15	3.00	3.60	2.39 $\frac{1}{2}$	4.40	3.29 $\frac{1}{2}$
1898..	3.12 $\frac{1}{2}$	.....	4.00	2.40	.....	4.00	2.75	3.15	3.00	2.80	2.39 $\frac{1}{2}$	4.41	3.20 $\frac{1}{2}$



TABLE I.—AVERAGE DAILY WAGES IN GOLD IN CERTAIN CITIES OF THE UNITED STATES, 1870 TO 1898—Continued.

[The wages for the years 1870 to 1878, inclusive, except in the case of San Francisco, were reported in currency. In converting wages in currency into wages in gold the value of \$100 gold in currency for January of each year from 1870 to 1877 and the average value for the entire year 1878, as given in

PAINTERS, HOUSE.

Year.	Balti- more.	Bos- ton.	Chi- cago.	Cin- cin- nati.	New Or- leans.	New York.	Phila- del- phia.	Pitts- burg and Alle- gheny.	Rich- mond.	St. Louis.	St. Paul.	San Fran- cisco.	Aver- age.
1870..	\$2. 06	\$2. 26 <sup>3</sup> / <sub>4</sub>	\$1. 66	\$2. 06	\$2. 06	\$2. 43 <sup>1</sup> / <sub>2</sub>	\$2. 39	\$2. 06	\$1. 65	\$2. 06	\$2. 28 <sup>1</sup> / <sub>4</sub>	\$3. 72	\$2. 22 <sup>1</sup> / <sub>2</sub>
1871..	2. 25 <sup>3</sup> / <sub>4</sub>	2. 46	1. 85 <sup>3</sup> / <sub>4</sub>	2. 25 <sup>3</sup> / <sub>4</sub>	2. 25 <sup>3</sup> / <sub>4</sub>	2. 66 <sup>3</sup> / <sub>4</sub>	2. 55 <sup>1</sup> / <sub>4</sub>	2. 27 <sup>3</sup> / <sub>4</sub>	1. 80 <sup>3</sup> / <sub>4</sub>	2. 25 <sup>3</sup> / <sub>4</sub>	2. 50 <sup>1</sup> / <sub>4</sub>	3. 66	2. 40 <sup>1</sup> / <sub>4</sub>
1872..	2. 29 <sup>1</sup> / <sub>4</sub>	2. 57 <sup>1</sup> / <sub>4</sub>	2. 40 <sup>1</sup> / <sub>2</sub>	2. 29 <sup>1</sup> / <sub>4</sub>	2. 75	2. 69 <sup>1</sup> / <sub>2</sub>	2. 68	2. 31 <sup>1</sup> / <sub>4</sub>	1. 83 <sup>1</sup> / <sub>4</sub>	2. 29 <sup>1</sup> / <sub>4</sub>	2. 41 <sup>1</sup> / <sub>2</sub>	3. 70	2. 52 <sup>1</sup> / <sub>4</sub>
1873..	2. 21 <sup>1</sup> / <sub>4</sub>	2. 14 <sup>3</sup> / <sub>4</sub>	1. 76 <sup>1</sup> / <sub>4</sub>	2. 21 <sup>3</sup> / <sub>4</sub>	2. 66 <sup>1</sup> / <sub>4</sub>	2. 59 <sup>3</sup> / <sub>4</sub>	2. 59 <sup>1</sup> / <sub>2</sub>	2. 21 <sup>3</sup> / <sub>4</sub>	1. 55 <sup>1</sup> / <sub>4</sub>	2. 21 <sup>3</sup> / <sub>4</sub>	2. 36 <sup>3</sup> / <sub>4</sub>	3. 69 <sup>1</sup> / <sub>2</sub>	2. 35 <sup>1</sup> / <sub>2</sub>
1874..	2. 24 <sup>1</sup> / <sub>2</sub>	2. 47	1. 65	2. 24 <sup>1</sup> / <sub>2</sub>	1. 79 <sup>1</sup> / <sub>2</sub>	2. 43 <sup>1</sup> / <sub>4</sub>	2. 24 <sup>1</sup> / <sub>2</sub>	2. 24 <sup>1</sup> / <sub>2</sub>	1. 57	2. 24 <sup>1</sup> / <sub>2</sub>	2. 39 <sup>1</sup> / <sub>2</sub>	3. 25	2. 23 <sup>1</sup> / <sub>4</sub>
1875..	2. 22 <sup>1</sup> / <sub>2</sub>	2. 36	1. 56	2. 22 <sup>1</sup> / <sub>4</sub>	1. 77 <sup>3</sup> / <sub>4</sub>	2. 48 <sup>1</sup> / <sub>2</sub>	2. 62 <sup>1</sup> / <sub>4</sub>	2. 22 <sup>1</sup> / <sub>4</sub>	1. 55 <sup>1</sup> / <sub>2</sub>	2. 22 <sup>1</sup> / <sub>4</sub>	2. 37	3. 16 <sup>3</sup> / <sub>4</sub>	2. 23 <sup>1</sup> / <sub>4</sub>
1876..	2. 21 <sup>3</sup> / <sub>4</sub>	2. 01 <sup>1</sup> / <sub>2</sub>	1. 51 <sup>1</sup> / <sub>2</sub>	2. 21 <sup>3</sup> / <sub>4</sub>	1. 77 <sup>1</sup> / <sub>4</sub>	2. 47 <sup>3</sup> / <sub>4</sub>	2. 35	2. 00 <sup>3</sup> / <sub>4</sub>	1. 55 <sup>1</sup> / <sub>4</sub>	2. 21 <sup>3</sup> / <sub>4</sub>	2. 30 <sup>1</sup> / <sub>2</sub>	3. 26	2. 16
1877..	2. 35 <sup>1</sup> / <sub>2</sub>	1. 95	1. 67 <sup>1</sup> / <sub>4</sub>	2. 35 <sup>1</sup> / <sub>2</sub>	2. 11 <sup>1</sup> / <sub>4</sub>	2. 62 <sup>1</sup> / <sub>2</sub>	2. 33	2. 11 <sup>3</sup> / <sub>4</sub>	1. 64 <sup>1</sup> / <sub>2</sub>	2. 35 <sup>1</sup> / <sub>2</sub>	2. 44 <sup>1</sup> / <sub>4</sub>	3. 10 <sup>1</sup> / <sub>4</sub>	2. 25 <sup>3</sup> / <sub>4</sub>
1878..	2. 46 <sup>1</sup> / <sub>2</sub>	2. 04 <sup>1</sup> / <sub>4</sub>	1. 88 <sup>3</sup> / <sub>4</sub>	2. 22	2. 22	2. 75	2. 26 <sup>3</sup> / <sub>4</sub>	2. 35	1. 72 <sup>1</sup> / <sub>2</sub>	2. 46 <sup>1</sup> / <sub>2</sub>	2. 61 <sup>1</sup> / <sub>2</sub>	3. 12 <sup>3</sup> / <sub>4</sub>	2. 34 <sup>1</sup> / <sub>2</sub>
1879..	2. 50	1. 84 <sup>1</sup> / <sub>2</sub>	1. 94 <sup>1</sup> / <sub>4</sub>	2. 00	2. 00	2. 80 <sup>3</sup> / <sub>4</sub>	2. 30	2. 34 <sup>1</sup> / <sub>2</sub>	1. 75	2. 50	2. 65 <sup>1</sup> / <sub>4</sub>	3. 10 <sup>1</sup> / <sub>2</sub>	2. 31 <sup>1</sup> / <sub>2</sub>
1880..	2. 50	2. 18 <sup>3</sup> / <sub>4</sub>	2. 08 <sup>3</sup> / <sub>4</sub>	2. 00	2. 00	3. 00	2. 35	2. 50	2. 00	2. 50	2. 75	3. 10 <sup>1</sup> / <sub>4</sub>	2. 41 <sup>1</sup> / <sub>2</sub>
1881..	2. 50	2. 31	2. 27 <sup>1</sup> / <sub>2</sub>	2. 25	2. 00	3. 00	2. 57 <sup>1</sup> / <sub>2</sub>	2. 50	2. 00	2. 50	2. 75	3. 00	2. 47 <sup>1</sup> / <sub>4</sub>
1882..	2. 50	2. 42 <sup>1</sup> / <sub>4</sub>	2. 52 <sup>1</sup> / <sub>4</sub>	2. 37 <sup>1</sup> / <sub>2</sub>	2. 00	3. 00	2. 55	2. 50	2. 00	2. 50	2. 75	3. 00	2. 51
1883..	2. 50	2. 46 <sup>1</sup> / <sub>2</sub>	2. 59 <sup>1</sup> / <sub>2</sub>	2. 37 <sup>1</sup> / <sub>2</sub>	2. 00	3. 30 <sup>3</sup> / <sub>4</sub>	2. 75	3. 00	2. 00	2. 50	2. 75	3. 16 <sup>3</sup> / <sub>4</sub>	2. 61 <sup>3</sup> / <sub>4</sub>
1884..	2. 50	2. 43 <sup>3</sup> / <sub>4</sub>	2. 58 <sup>3</sup> / <sub>4</sub>	2. 37 <sup>1</sup> / <sub>2</sub>	2. 25	3. 30 <sup>3</sup> / <sub>4</sub>	2. 72 <sup>1</sup> / <sub>2</sub>	3. 00	2. 50	2. 42	2. 75	3. 07 <sup>3</sup> / <sub>4</sub>	2. 66
1885..	2. 50	2. 48 <sup>1</sup> / <sub>2</sub>	2. 67 <sup>1</sup> / <sub>2</sub>	2. 25	2. 25	3. 30 <sup>3</sup> / <sub>4</sub>	2. 77 <sup>1</sup> / <sub>2</sub>	2. 77 <sup>1</sup> / <sub>2</sub>	2. 50	2. 42	2. 75	3. 00	2. 64
1886..	2. 50	2. 41 <sup>1</sup> / <sub>2</sub>	2. 41 <sup>3</sup> / <sub>4</sub>	2. 50	2. 25	3. 50	2. 72 <sup>1</sup> / <sub>4</sub>	2. 62 <sup>1</sup> / <sub>2</sub>	2. 50	2. 41 <sup>1</sup> / <sub>2</sub>	2. 75	3. 00	2. 63 <sup>1</sup> / <sub>4</sub>
1887..	2. 50	2. 52 <sup>1</sup> / <sub>2</sub>	2. 40 <sup>1</sup> / <sub>2</sub>	2. 50	2. 25	3. 50	2. 74 <sup>1</sup> / <sub>4</sub>	3. 00	2. 00	2. 42 <sup>1</sup> / <sub>4</sub>	2. 75	3. 00	2. 63 <sup>1</sup> / <sub>4</sub>
1888..	2. 50	2. 51 <sup>1</sup> / <sub>2</sub>	2. 51 <sup>1</sup> / <sub>4</sub>	2. 50	2. 25	3. 50	2. 72 <sup>1</sup> / <sub>4</sub>	3. 00	2. 00	2. 42 <sup>1</sup> / <sub>2</sub>	2. 75	3. 00	2. 64
1889..	2. 50	2. 40 <sup>3</sup> / <sub>4</sub>	2. 44 <sup>1</sup> / <sub>4</sub>	2. 50	2. 25	3. 50	2. 74 <sup>1</sup> / <sub>2</sub>	2. 83 <sup>1</sup> / <sub>2</sub>	2. 00	2. 42 <sup>3</sup> / <sub>4</sub>	2. 75	3. 00	2. 61 <sup>1</sup> / <sub>4</sub>
1890..	2. 50	2. 52	2. 30 <sup>1</sup> / <sub>2</sub>	2. 50	2. 25	3. 50	2. 74 <sup>1</sup> / <sub>2</sub>	3. 00	1. 75	2. 43 <sup>1</sup> / <sub>4</sub>	2. 75	2. 89	2. 59 <sup>1</sup> / <sub>2</sub>
1891..	2. 50	2. 56 <sup>1</sup> / <sub>2</sub>	2. 42	2. 47 <sup>1</sup> / <sub>2</sub>	2. 25	3. 50	2. 76 <sup>3</sup> / <sub>4</sub>	3. 00	1. 75	2. 43 <sup>1</sup> / <sub>4</sub>	2. 75	2. 92 <sup>1</sup> / <sub>2</sub>	2. 61 <sup>1</sup> / <sub>2</sub>
1892..	2. 50	2. 58 <sup>3</sup> / <sub>4</sub>	2. 59 <sup>1</sup> / <sub>4</sub>	2. 61	2. 70	3. 50	2. 72 <sup>1</sup> / <sub>4</sub>	3. 00	2. 00	2. 50	2. 62 <sup>1</sup> / <sub>2</sub>	2. 92 <sup>1</sup> / <sub>4</sub>	2. 68 <sup>3</sup> / <sub>4</sub>
1893..	2. 50	2. 52	2. 81	2. 61	2. 70	3. 50	2. 74 <sup>1</sup> / <sub>4</sub>	3. 00	2. 00	2. 50	2. 50	2. 88 <sup>3</sup> / <sub>4</sub>	2. 69
1894..	2. 50	2. 74 <sup>1</sup> / <sub>2</sub>	2. 63	2. 61	2. 70	3. 50	2. 72 <sup>1</sup> / <sub>4</sub>	2. 79 <sup>1</sup> / <sub>4</sub>	2. 00	2. 50	2. 50	2. 89	2. 67 <sup>1</sup> / <sub>2</sub>
1895..	2. 50	2. 58 <sup>3</sup> / <sub>4</sub>	2. 64	2. 61	2. 25	3. 50	2. 72 <sup>1</sup> / <sub>4</sub>	2. 83 <sup>3</sup> / <sub>4</sub>	1. 75	2. 50	2. 50	2. 83 <sup>1</sup> / <sub>4</sub>	2. 60 <sup>1</sup> / <sub>2</sub>
1896..	2. 50	2. 54 <sup>1</sup> / <sub>4</sub>	2. 61	2. 61	2. 25	3. 50	2. 72 <sup>1</sup> / <sub>4</sub>	2. 72 <sup>1</sup> / <sub>4</sub>	1. 75	2. 50	2. 50	2. 83 <sup>1</sup> / <sub>4</sub>	2. 58 <sup>3</sup> / <sub>4</sub>
1897..	2. 50	2. 63 <sup>1</sup> / <sub>4</sub>	2. 80	2. 61	2. 00	3. 50	2. 67 <sup>3</sup> / <sub>4</sub>	2. 67 <sup>3</sup> / <sub>4</sub>	1. 75	2. 50	2. 50	2. 72	2. 57 <sup>1</sup> / <sub>4</sub>
1898..	2. 50	2. 85 <sup>3</sup> / <sub>4</sub>	2. 81	2. 61	2. 00	3. 50	2. 70	2. 71 <sup>1</sup> / <sub>4</sub>	1. 75	2. 50	2. 50	2. 75 <sup>1</sup> / <sub>2</sub>	2. 60

PATTERN MAKERS, IRON WORKS.

1870..	2. 47 <sup>1</sup> / <sub>4</sub>	3. 50 <sup>1</sup> / <sub>4</sub>	2. 65 <sup>3</sup> / <sub>4</sub>	2. 54	3. 50 <sup>1</sup> / <sub>4</sub>	2. 45 <sup>1</sup> / <sub>4</sub>	1. 94 <sup>3</sup> / <sub>4</sub>	2. 20	.....	2. 34 <sup>1</sup> / <sub>4</sub>	3. 09 <sup>1</sup> / <sub>4</sub>	3. 00	2. 70
1871..	2. 71	3. 61 <sup>1</sup> / <sub>4</sub>	2. 93	2. 78 <sup>1</sup> / <sub>2</sub>	3. 46 <sup>1</sup> / <sub>4</sub>	2. 53	2. 30 <sup>3</sup> / <sub>4</sub>	2. 46	.....	2. 56 <sup>3</sup> / <sub>4</sub>	3. 38 <sup>3</sup> / <sub>4</sub>	3. 44 <sup>1</sup> / <sub>2</sub>	2. 92 <sup>3</sup> / <sub>4</sub>
1872..	2. 75	3. 96 <sup>1</sup> / <sub>2</sub>	2. 96 <sup>3</sup> / <sub>4</sub>	2. 82 <sup>1</sup> / <sub>2</sub>	3. 55 <sup>1</sup> / <sub>4</sub>	2. 52	2. 36 <sup>1</sup> / <sub>2</sub>	2. 33 <sup>1</sup> / <sub>2</sub>	.....	2. 60 <sup>1</sup> / <sub>2</sub>	3. 43 <sup>3</sup> / <sub>4</sub>	3. 47 <sup>1</sup> / <sub>4</sub>	2. 98 <sup>1</sup> / <sub>4</sub>
1873..	2. 66 <sup>1</sup> / <sub>4</sub>	3. 77	2. 88	2. 60 <sup>3</sup> / <sub>4</sub>	3. 55	2. 61 <sup>3</sup> / <sub>4</sub>	2. 41 <sup>1</sup> / <sub>4</sub>	2. 21 <sup>3</sup> / <sub>4</sub>	.....	2. 47 <sup>3</sup> / <sub>4</sub>	3. 25 <sup>1</sup> / <sub>2</sub>	3. 89 <sup>1</sup> / <sub>4</sub>	2. 94
1874..	2. 69 <sup>1</sup> / <sub>4</sub>	3. 92 <sup>3</sup> / <sub>4</sub>	2. 70 <sup>1</sup> / <sub>4</sub>	2. 46 <sup>3</sup> / <sub>4</sub>	3. 59	2. 69 <sup>1</sup> / <sub>4</sub>	2. 46 <sup>1</sup> / <sub>4</sub>	2. 24 <sup>1</sup> / <sub>2</sub>	.....	2. 50 <sup>3</sup> / <sub>4</sub>	3. 29 <sup>1</sup> / <sub>4</sub>	3. 75	2. 94
1875..	2. 66 <sup>3</sup> / <sub>4</sub>	3. 53 <sup>1</sup> / <sub>4</sub>	2. 65 <sup>1</sup> / <sub>2</sub>	2. 44 <sup>1</sup> / <sub>2</sub>	3. 55 <sup>1</sup> / <sub>2</sub>	2. 91	2. 19 <sup>1</sup> / <sub>2</sub>	2. 01 <sup>1</sup> / <sub>4</sub>	.....	2. 41 <sup>1</sup> / <sub>2</sub>	3. 22 <sup>1</sup> / <sub>4</sub>	3. 79 <sup>1</sup> / <sub>4</sub>	2. 85 <sup>1</sup> / <sub>2</sub>
1876..	2. 60 <sup>1</sup> / <sub>2</sub>	2. 94 <sup>3</sup> / <sub>4</sub>	2. 63 <sup>1</sup> / <sub>4</sub>	2. 43 <sup>3</sup> / <sub>4</sub>	2. 66	3. 10 <sup>1</sup> / <sub>4</sub>	2. 08 <sup>1</sup> / <sub>2</sub>	2. 04	.....	2. 38 <sup>1</sup> / <sub>2</sub>	3. 21 <sup>1</sup> / <sub>4</sub>	3. 36 <sup>1</sup> / <sub>2</sub>	2. 68
1877..	2. 76 <sup>1</sup> / <sub>2</sub>	2. 94 <sup>1</sup> / <sub>4</sub>	2. 57 <sup>3</sup> / <sub>4</sub>	2. 38 <sup>3</sup> / <sub>4</sub>	2. 82 <sup>1</sup> / <sub>2</sub>	3. 29 <sup>1</sup> / <sub>2</sub>	2. 30 <sup>3</sup> / <sub>4</sub>	2. 10 <sup>1</sup> / <sub>2</sub>	.....	2. 70 <sup>3</sup> / <sub>4</sub>	3. 20 <sup>1</sup> / <sub>4</sub>	3. 30	2. 76 <sup>1</sup> / <sub>2</sub>
1878..	2. 89 <sup>3</sup> / <sub>4</sub>	3. 08 <sup>1</sup> / <sub>4</sub>	2. 68 <sup>1</sup> / <sub>2</sub>	2. 38 <sup>1</sup> / <sub>2</sub>	2. 95 <sup>3</sup> / <sub>4</sub>	4. 43 <sup>3</sup> / <sub>4</sub>	2. 15 <sup>1</sup> / <sub>4</sub>	2. 09 <sup>1</sup> / <sub>2</sub>	.....	2. 83 <sup>1</sup> / <sub>2</sub>	3. 35 <sup>1</sup> / <sub>4</sub>	3. 17 <sup>1</sup> / <sub>2</sub>	2. 91 <sup>1</sup> / <sub>2</sub>
1879..	2. 93 <sup>3</sup> / <sub>4</sub>	3. 10	2. 69 <sup>1</sup> / <sub>2</sub>	2. 62 <sup>1</sup> / <sub>2</sub>	2. 91 <sup>3</sup> / <sub>4</sub>	3. 65	2. 02	2. 10	.....	2. 84 <sup>1</sup> / <sub>2</sub>	3. 40	3. 13 <sup>3</sup> / <sub>4</sub>	2. 85 <sup>3</sup> / <sub>4</sub>
1880..	2. 93 <sup>3</sup> / <sub>4</sub>	2. 97 <sup>1</sup> / <sub>2</sub>	2. 69 <sup>1</sup> / <sub>2</sub>	2. 45 <sup>1</sup> / <sub>2</sub>	3. 00	3. 15	2. 17	2. 32 <sup>1</sup> / <sub>2</sub>	.....	2. 84 <sup>1</sup> / <sub>4</sub>	3. 37 <sup>1</sup> / <sub>2</sub>	3. 08 <sup>1</sup> / <sub>4</sub>	2. 82
1881..	2. 84	2. 95	2. 86 <sup>3</sup> / <sub>4</sub>	2. 58 <sup>1</sup> / <sub>4</sub>	3. 00	3. 12 <sup>1</sup> / <sub>2</sub>	2. 40 <sup>3</sup> / <sub>4</sub>	2. 43 <sup>3</sup> / <sub>4</sub>	.....	2. 85 <sup>3</sup> / <sub>4</sub>	3. 31 <sup>1</sup> / <sub>4</sub>	3. 15 <sup>1</sup> / <sub>4</sub>	2. 86 <sup>3</sup> / <sub>4</sub>
1882..	2. 63 <sup>3</sup> / <sub>4</sub>	2. 95	2. 94 <sup>1</sup> / <sub>2</sub>	2. 50	3. 00	3. 32 <sup>1</sup> / <sub>2</sub>	2. 50 <sup>1</sup> / <sub>4</sub>	2. 42	.....	2. 85 <sup>3</sup> / <sub>4</sub>	3. 33 <sup>1</sup> / <sub>4</sub>	3. 30 <sup>1</sup> / <sub>2</sub>	2. 88 <sup>3</sup> / <sub>4</sub>
1883..	2. 61 <sup>1</sup> / <sub>4</sub>	2. 75	2. 92 <sup>1</sup> / <sub>2</sub>	2. 50	3. 00	3. 32 <sup>1</sup> / <sub>2</sub>	2. 55 <sup>3</sup> / <sub>4</sub>	2. 54 <sup>1</sup> / <sub>2</sub>	.....	2. 87 <sup>1</sup> / <sub>2</sub>	3. 33 <sup>1</sup> / <sub>4</sub>	3. 35 <sup>1</sup> / <sub>4</sub>	2. 88 <sup>3</sup> / <sub>4</sub>
1884..	2. 61 <sup>1</sup> / <sub>4</sub>	3. 07 <sup>1</sup> / <sub>2</sub>	2. 97 <sup>1</sup> / <sub>4</sub>	2. 50	3. 00	3. 62 <sup>1</sup> / <sub>2</sub>	2. 53 <sup>1</sup> / <sub>2</sub>	2. 45 <sup>1</sup> / <sub>4</sub>	.....	2. 81 <sup>1</sup> / <sub>4</sub>	3. 33 <sup>1</sup> / <sub>4</sub>	3. 32 <sup>1</sup> / <sub>4</sub>	2. 93
1885..	2. 61 <sup>1</sup> / <sub>4</sub>	2. 47 <sup>1</sup> / <sub>2</sub>	2. 93 <sup>1</sup> / <sub>2</sub>	2. 50	3. 00	3. 37 <sup>1</sup> / <sub>2</sub>	2. 43 <sup>3</sup> / <sub>4</sub>	2. 55 <sup>3</sup> / <sub>4</sub>	.....	2. 78 <sup>1</sup> / <sub>4</sub>	3. 31 <sup>1</sup> / <sub>4</sub>	3. 31 <sup>1</sup> / <sub>4</sub>	2. 84 <sup>1</sup> / <sub>2</sub>
1886..	2. 61 <sup>1</sup> / <sub>4</sub>	2. 77 <sup>1</sup> / <sub>2</sub>	2. 90 <sup>1</sup> / <sub>2</sub>	2. 55 <sup>1</sup> / <sub>2</sub>	2. 87 <sup>1</sup> / <sub>2</sub>	3. 40	2. 46	2. 63	.....	2. 82 <sup>3</sup> / <sub>4</sub>	3. 31 <sup>1</sup> / <sub>4</sub>	3. 34	2. 88
1887..	2. 61 <sup>1</sup> / <sub>4</sub>	3. 00	2. 94 <sup>1</sup> / <sub>2</sub>	2. 36 <sup>1</sup> / <sub>4</sub>	3. 00	3. 50	2. 71 <sup>1</sup> / <sub>4</sub>	2. 65	.....	2. 76 <sup>1</sup> / <sub>2</sub>	3. 30 <sup>3</sup> / <sub>4</sub>	3. 40 <sup>1</sup> / <sub>2</sub>	2. 93 <sup>1</sup> / <sub>4</sub>
1888..	2. 61 <sup>1</sup> / <sub>4</sub>	3. 00	2. 94 <sup>1</sup> / <sub>4</sub>	2. 46 <sup>3</sup> / <sub>4</sub>	3. 00	3. 57 <sup>1</sup> / <sub>2</sub>	2. 61	2. 78 <sup>3</sup> / <sub>4</sub>	.....	2. 76 <sup>1</sup> / <sub>2</sub>	3. 32 <sup>1</sup> / <sub>2</sub>	3. 42 <sup>1</sup> / <sub>4</sub>	2. 95 <sup>1</sup> / <sub>2</sub>
1889..	2. 61 <sup>1</sup> / <sub>4</sub>	3. 10	2. 96 <sup>1</sup> / <sub>4</sub>	2. 38	3. 00	3. 35	2. 61 <sup>3</sup> / <sub>4</sub>	2. 75 <sup>1</sup> / <sub>2</sub>	.....	2. 61 <sup>3</sup> / <sub>4</sub>	3. 33 <sup>1</sup> / <sub>4</sub>	3. 55	2. 93 <sup>1</sup> / <sub>2</sub>
1890..	2. 61 <sup>1</sup> / <sub>4</sub>	3. 10	2. 95 <sup>3</sup> / <sub>4</sub>	2. 50	2. 87 <sup>1</sup> / <sub>2</sub>	3. 55	2. 67 <sup>1</sup> / <sub>2</sub>	2. 76 <sup>1</sup> / <sub>4</sub>	.....	2. 69 <sup>1</sup> / <sub>4</sub>	3. 50	3. 56 <sup>3</sup> / <sub>4</sub>	2. 98
1891..	2. 61 <sup>1</sup> / <sub>4</sub>	3. 10	3. 22 <sup>1</sup> / <sub>4</sub>	2. 66 <sup>3</sup> / <sub>4</sub>	2. 87 <sup>1</sup> / <sub>2</sub>	3. 82 <sup>1</sup> / <sub>2</sub>	2. 68	2. 78 <sup>1</sup> / <sub>4</sub>	.....	2. 69 <sup>1</sup> / <sub>4</sub>	3. 50	3. 58 <sup>1</sup> / <sub>4</sub>	3. 05
1892..	2. 61 <sup>1</sup> / <sub>4</sub>	3. 10	3. 23 <sup>1</sup> / <sub>4</sub>	2. 61	2. 87 <sup>1</sup> / <sub>2</sub>	3. 60	2. 67 <sup>1</sup> / <sub>4</sub>	2. 69 <sup>3</sup> / <sub>4</sub>	.....	2. 69 <sup>1</sup> / <sub>4</sub>	3. 50	3. 56 <sup>1</sup> / <sub>4</sub>	3. 01 <sup>1</sup> / <sub>2</sub>
1893..	2. 61 <sup>1</sup> / <sub>4</sub>	3. 27 <sup>1</sup> / <sub>2</sub>	3. 46 <sup>1</sup> / <sub>2</sub>	2. 41 <sup>3</sup> / <sub>4</sub>	2. 83 <sup>1</sup> / <sub>4</sub>	3. 42 <sup>1</sup> / <sub>2</sub>	2. 70	2. 57 <sup>1</sup> / <sub>2</sub>	.....	2. 77 <sup>3</sup> / <sub>4</sub>	3. 34 <sup>1</sup> / <sub>2</sub>	3. 15	2. 96 <sup>1</sup> / <sub>4</sub>
1894..	2. 61 <sup>1</sup> / <sub>4</sub>	2. 97 <sup>1</sup> / <sub>2</sub>	2. 88	2. 18 <sup>3</sup> / <sub>4</sub>	2. 75	3. 67 <sup>1</sup> / <sub>2</sub>	2. 48 <sup>3</sup> / <sub>4</sub>	2. 55	.....	2. 78 <sup>1</sup> / <sub>2</sub>	3. 32 <sup>1</sup> / <sub>4</sub>	3. 58 <sup>1</sup> / <sub>4</sub>	2. 89 <sup>1</sup> / <sub>4</sub>
1895..	2. 61 <sup>1</sup> / <sub>4</sub>	3. 10	2. 96 <sup>1</sup> / <sub>4</sub>	2. 18 <sup>3</sup> / <sub>4</sub>	2. 87 <sup>1</sup> / <sub>2</sub>	3. 37 <sup>1</sup> / <sub>2</sub>	2. 57	2. 74 <sup>3</sup> / <sub>4</sub>	.....	2. 78 <sup>1</sup> / <sub>2</sub>	3. 35	3. 39 <sup>1</sup> / <sub>4</sub>	2. 90 <sup>1</sup> / <sub>2</sub>
1896..	2. 61 <sup>1</sup> / <sub>4</sub>	2. 65	2. 92 <sup>1</sup> / <sub>4</sub>	2. 22 <sup>3</sup> / <sub>4</sub>	2. 75	3. 10	2. 70 <sup>1</sup> / <sub>4</sub>	2. 69 <sup>1</sup> / <sub>4</sub>	.....	2. 78 <sup>1</sup> / <sub>2</sub>	3. 32 <sup>1</sup> / <sub>4</sub>	3. 32 <sup>1</sup> / <sub>4</sub>	2. 82 <sup>3</sup> / <sub>4</sub>
1897..	2. 61 <sup>1</sup> / <sub>4</sub>	2. 75	2. 93 <sup>1</sup> / <sub>2</sub>	2. 22 <sup>3</sup> / <sub>4</sub>	2. 87 <sup>1</sup> / <sub>2</sub>	3. 05	2. 68	2. 55 <sup>1</sup> / <sub>2</sub>	.....	2. 68 <sup>1</sup> / <sub>2</sub>	3. 32 <sup>1</sup> / <sub>4</sub>	3. 34 <sup>1</sup> / <sub>2</sub>	2. 82 <sup>1</sup> / <sub>4</sub>
1898..	2. 61	2. 80	2. 95	2. 31 <sup>1</sup> / <sub>4</sub>	2. 83 <sup>1</sup> / <sub>2</sub>	3. 57 <sup>1</sup> / <sub>2</sub>	2. 68 <sup>1</sup> / <sub>4</sub>	2. 78	.....	2. 68 <sup>1</sup> / <sub>2</sub>	3. 31 <sup>1</sup> / <sub>4</sub>	3. 35	2. 90



TABLE I.—AVERAGE DAILY WAGES IN GOLD IN CERTAIN CITIES OF THE UNITED STATES, 1870 TO 1898—Continued.

the American Almanac for 1879, have been used, as follows: 1870, \$121.3; 1871, \$110.7; 1872, \$109.1; 1873, \$112.7; 1874, \$111.4; 1875, \$112.5; 1876, \$112.8; 1877, \$106.2, and 1878, \$101.4.]

## PLUMBERS.

Year.	Balti- more.	Bos- ton.	Chi- cago.	Cin- cin- nati.	New Or- leans.	New York.	Phila- del- phia.	Pitts- burg and Alle- gheny.	Rich- mond.	St. Louis.	St. Paul.	San Fran- cisco.	Aver- age.
1870..	\$2.36 <sup>1</sup> <sub>2</sub>	\$2.88 <sup>1</sup> <sub>2</sub>	\$2.59 <sup>1</sup> <sub>2</sub>	\$3.09 <sup>1</sup> <sub>2</sub>	\$2.26 <sup>1</sup> <sub>2</sub>	\$2.75 <sup>1</sup> <sub>2</sub>	\$2.73	\$2.15	\$2.55 <sup>1</sup> <sub>2</sub>	\$2.88 <sup>1</sup> <sub>2</sub>	\$2.98 <sup>1</sup> <sub>2</sub>	\$3.66	\$2.74 <sup>1</sup> <sub>2</sub>
1871..	2.62 <sup>1</sup> <sub>2</sub>	3.12	2.84 <sup>1</sup> <sub>2</sub>	3.23 <sup>1</sup> <sub>2</sub>	2.44	3.00 <sup>1</sup> <sub>2</sub>	3.05 <sup>1</sup> <sub>2</sub>	2.35 <sup>1</sup> <sub>2</sub>	2.80	3.16 <sup>1</sup> <sub>2</sub>	3.27 <sup>1</sup> <sub>2</sub>	3.62 <sup>1</sup> <sub>2</sub>	2.96 <sup>1</sup> <sub>2</sub>
1872..	2.65 <sup>1</sup> <sub>2</sub>	3.13 <sup>1</sup> <sub>2</sub>	2.88 <sup>1</sup> <sub>2</sub>	2.10 <sup>1</sup> <sub>2</sub>	2.52	2.91 <sup>1</sup> <sub>2</sub>	2.89 <sup>1</sup> <sub>2</sub>	2.39	2.84 <sup>1</sup> <sub>2</sub>	3.20 <sup>1</sup> <sub>2</sub>	3.30	3.69 <sup>1</sup> <sub>2</sub>	2.87 <sup>1</sup> <sub>2</sub>
1873..	2.57	3.11	2.79 <sup>1</sup> <sub>2</sub>	2.27 <sup>1</sup> <sub>2</sub>	2.39 <sup>1</sup> <sub>2</sub>	2.76	2.67 <sup>1</sup> <sub>2</sub>	2.30 <sup>1</sup> <sub>2</sub>	2.77 <sup>1</sup> <sub>2</sub>	3.10 <sup>1</sup> <sub>2</sub>	3.18	3.66	2.80
1874..	2.46	3.01	2.82 <sup>1</sup> <sub>2</sub>	2.79 <sup>1</sup> <sub>2</sub>	2.46 <sup>1</sup> <sub>2</sub>	2.73	2.58 <sup>1</sup> <sub>2</sub>	2.32	2.80 <sup>1</sup> <sub>2</sub>	3.14 <sup>1</sup> <sub>2</sub>	3.19	3.61	2.83
1875..	2.43	2.89 <sup>1</sup> <sub>2</sub>	2.80	2.88	2.41 <sup>1</sup> <sub>2</sub>	2.76	2.80 <sup>1</sup> <sub>2</sub>	2.41 <sup>1</sup> <sub>2</sub>	2.81 <sup>1</sup> <sub>2</sub>	3.11	3.16	3.62	2.84 <sup>1</sup> <sub>2</sub>
1876..	2.38 <sup>1</sup> <sub>2</sub>	2.92 <sup>1</sup> <sub>2</sub>	2.79 <sup>1</sup> <sub>2</sub>	2.57	2.34 <sup>1</sup> <sub>2</sub>	2.75 <sup>1</sup> <sub>2</sub>	2.74 <sup>1</sup> <sub>2</sub>	2.36 <sup>1</sup> <sub>2</sub>	2.80 <sup>1</sup> <sub>2</sub>	3.10 <sup>1</sup> <sub>2</sub>	3.10 <sup>1</sup> <sub>2</sub>	3.60 <sup>1</sup> <sub>2</sub>	2.79
1877..	2.58 <sup>1</sup> <sub>2</sub>	3.03	2.96 <sup>1</sup> <sub>2</sub>	2.82 <sup>1</sup> <sub>2</sub>	2.55 <sup>1</sup> <sub>2</sub>	2.98 <sup>1</sup> <sub>2</sub>	2.51 <sup>1</sup> <sub>2</sub>	2.35 <sup>1</sup> <sub>2</sub>	2.94 <sup>1</sup> <sub>2</sub>	3.29 <sup>1</sup> <sub>2</sub>	3.23	3.60 <sup>1</sup> <sub>2</sub>	2.91 <sup>1</sup> <sub>2</sub>
1878..	2.70 <sup>1</sup> <sub>2</sub>	2.41 <sup>1</sup> <sub>2</sub>	3.10 <sup>1</sup> <sub>2</sub>	3.02 <sup>1</sup> <sub>2</sub>	2.59	3.09 <sup>1</sup> <sub>2</sub>	2.17	2.46 <sup>1</sup> <sub>2</sub>	3.08 <sup>1</sup> <sub>2</sub>	3.45 <sup>1</sup> <sub>2</sub>	3.45 <sup>1</sup> <sub>2</sub>	3.55 <sup>1</sup> <sub>2</sub>	2.92 <sup>1</sup> <sub>2</sub>
1879..	2.75 <sup>1</sup> <sub>2</sub>	2.22 <sup>1</sup> <sub>2</sub>	3.15	2.83 <sup>1</sup> <sub>2</sub>	2.70	3.12 <sup>1</sup> <sub>2</sub>	2.41 <sup>1</sup> <sub>2</sub>	2.70	3.12 <sup>1</sup> <sub>2</sub>	3.50	3.50	3.62 <sup>1</sup> <sub>2</sub>	2.97
1880..	2.70 <sup>1</sup> <sub>2</sub>	2.65 <sup>1</sup> <sub>2</sub>	3.07 <sup>1</sup> <sub>2</sub>	2.73 <sup>1</sup> <sub>2</sub>	2.75	3.39 <sup>1</sup> <sub>2</sub>	2.35 <sup>1</sup> <sub>2</sub>	2.50	2.41 <sup>1</sup> <sub>2</sub>	3.50	3.50	3.62 <sup>1</sup> <sub>2</sub>	2.93 <sup>1</sup> <sub>2</sub>
1881..	2.70 <sup>1</sup> <sub>2</sub>	2.72 <sup>1</sup> <sub>2</sub>	3.50	2.93	2.66 <sup>1</sup> <sub>2</sub>	3.43	2.47	2.16 <sup>1</sup> <sub>2</sub>	2.62 <sup>1</sup> <sub>2</sub>	3.50	3.50	3.43 <sup>1</sup> <sub>2</sub>	2.97
1882..	2.70 <sup>1</sup> <sub>2</sub>	2.78 <sup>1</sup> <sub>2</sub>	3.50	3.10	2.60	3.50	2.50	2.16 <sup>1</sup> <sub>2</sub>	2.60	3.50	3.50	3.50	2.99 <sup>1</sup> <sub>2</sub>
1883..	2.71	2.96 <sup>1</sup> <sub>2</sub>	3.50	2.78 <sup>1</sup> <sub>2</sub>	2.64 <sup>1</sup> <sub>2</sub>	3.50	2.66	2.75	2.12 <sup>1</sup> <sub>2</sub>	3.50	3.50	3.53 <sup>1</sup> <sub>2</sub>	3.01 <sup>1</sup> <sub>2</sub>
1884..	2.70 <sup>1</sup> <sub>2</sub>	3.11 <sup>1</sup> <sub>2</sub>	3.50	2.82 <sup>1</sup> <sub>2</sub>	2.75	3.50	2.66 <sup>1</sup> <sub>2</sub>	2.83 <sup>1</sup> <sub>2</sub>	2.10	3.50	3.50	3.44 <sup>1</sup> <sub>2</sub>	3.03 <sup>1</sup> <sub>2</sub>
1885..	2.70 <sup>1</sup> <sub>2</sub>	3.21 <sup>1</sup> <sub>2</sub>	3.50	2.68	2.70	3.50	2.81 <sup>1</sup> <sub>2</sub>	2.80	2.12 <sup>1</sup> <sub>2</sub>	3.50	3.50	3.55 <sup>1</sup> <sub>2</sub>	3.05
1886..	2.73	3.24	3.60	3.10 <sup>1</sup> <sub>2</sub>	2.71 <sup>1</sup> <sub>2</sub>	3.50	2.75	2.91 <sup>1</sup> <sub>2</sub>	2.12 <sup>1</sup> <sub>2</sub>	3.50	3.50	3.50	3.09 <sup>1</sup> <sub>2</sub>
1887..	2.64 <sup>1</sup> <sub>2</sub>	3.26 <sup>1</sup> <sub>2</sub>	3.57	3.31 <sup>1</sup> <sub>2</sub>	2.66 <sup>1</sup> <sub>2</sub>	3.60 <sup>1</sup> <sub>2</sub>	2.97	2.90 <sup>1</sup> <sub>2</sub>	2.12 <sup>1</sup> <sub>2</sub>	3.50	3.50	3.50	3.13
1888..	2.64 <sup>1</sup> <sub>2</sub>	3.17 <sup>1</sup> <sub>2</sub>	3.57	3.16 <sup>1</sup> <sub>2</sub>	2.58 <sup>1</sup> <sub>2</sub>	3.60 <sup>1</sup> <sub>2</sub>	3.22	3.00	2.10	3.50	3.50	3.50	3.13 <sup>1</sup> <sub>2</sub>
1889..	2.64 <sup>1</sup> <sub>2</sub>	3.23 <sup>1</sup> <sub>2</sub>	3.56 <sup>1</sup> <sub>2</sub>	3.21 <sup>1</sup> <sub>2</sub>	2.66 <sup>1</sup> <sub>2</sub>	3.59 <sup>1</sup> <sub>2</sub>	3.17 <sup>1</sup> <sub>2</sub>	3.07 <sup>1</sup> <sub>2</sub>	2.20	3.50	3.50	3.45 <sup>1</sup> <sub>2</sub>	3.15 <sup>1</sup> <sub>2</sub>
1890..	2.78 <sup>1</sup> <sub>2</sub>	3.18 <sup>1</sup> <sub>2</sub>	3.75	2.90 <sup>1</sup> <sub>2</sub>	2.64 <sup>1</sup> <sub>2</sub>	3.58 <sup>1</sup> <sub>2</sub>	3.00	3.00	2.20	3.50	3.50	3.55 <sup>1</sup> <sub>2</sub>	3.13 <sup>1</sup> <sub>2</sub>
1891..	2.78 <sup>1</sup> <sub>2</sub>	3.25	3.75	3.24 <sup>1</sup> <sub>2</sub>	2.66 <sup>1</sup> <sub>2</sub>	3.59	3.04 <sup>1</sup> <sub>2</sub>	3.08 <sup>1</sup> <sub>2</sub>	2.20	3.50	3.50	3.56 <sup>1</sup> <sub>2</sub>	3.18
1892..	2.81 <sup>1</sup> <sub>2</sub>	3.17 <sup>1</sup> <sub>2</sub>	3.75	3.50	2.71 <sup>1</sup> <sub>2</sub>	3.58 <sup>1</sup> <sub>2</sub>	3.12 <sup>1</sup> <sub>2</sub>	3.00	2.20	3.50	3.50	3.57 <sup>1</sup> <sub>2</sub>	3.20 <sup>1</sup> <sub>2</sub>
1893..	2.81 <sup>1</sup> <sub>2</sub>	3.30 <sup>1</sup> <sub>2</sub>	3.75	3.50	2.60	3.72 <sup>1</sup> <sub>2</sub>	2.96 <sup>1</sup> <sub>2</sub>	3.12 <sup>1</sup> <sub>2</sub>	2.25	3.50	3.50	3.54 <sup>1</sup> <sub>2</sub>	3.21 <sup>1</sup> <sub>2</sub>
1894..	2.81 <sup>1</sup> <sub>2</sub>	3.13	3.75	3.25	2.70	3.74 <sup>1</sup> <sub>2</sub>	3.00	3.14 <sup>1</sup> <sub>2</sub>	2.25	3.50	3.50	3.57 <sup>1</sup> <sub>2</sub>	3.19 <sup>1</sup> <sub>2</sub>
1895..	2.75	3.23	3.75	2.98	2.58 <sup>1</sup> <sub>2</sub>	3.74 <sup>1</sup> <sub>2</sub>	3.06 <sup>1</sup> <sub>2</sub>	3.08	2.25	3.50	3.50	3.58 <sup>1</sup> <sub>2</sub>	3.17 <sup>1</sup> <sub>2</sub>
1896..	2.81	3.30 <sup>1</sup> <sub>2</sub>	3.75	2.83 <sup>1</sup> <sub>2</sub>	2.66 <sup>1</sup> <sub>2</sub>	3.72 <sup>1</sup> <sub>2</sub>	3.01	3.12 <sup>1</sup> <sub>2</sub>	2.25	3.50	3.50	3.58 <sup>1</sup> <sub>2</sub>	3.17 <sup>1</sup> <sub>2</sub>
1897..	2.78 <sup>1</sup> <sub>2</sub>	3.31 <sup>1</sup> <sub>2</sub>	3.75	2.79 <sup>1</sup> <sub>2</sub>	2.71 <sup>1</sup> <sub>2</sub>	3.73 <sup>1</sup> <sub>2</sub>	2.82 <sup>1</sup> <sub>2</sub>	3.07 <sup>1</sup> <sub>2</sub>	2.25	3.50	3.50	3.54 <sup>1</sup> <sub>2</sub>	3.14 <sup>1</sup> <sub>2</sub>
1898..	2.78 <sup>1</sup> <sub>2</sub>	3.27 <sup>1</sup> <sub>2</sub>	3.75	2.92 <sup>1</sup> <sub>2</sub>	2.64 <sup>1</sup> <sub>2</sub>	3.73 <sup>1</sup> <sub>2</sub>	2.70	3.16 <sup>1</sup> <sub>2</sub>	2.25	3.50	3.50	3.61 <sup>1</sup> <sub>2</sub>	3.15 <sup>1</sup> <sub>2</sub>

## STONECUTTERS.

1870..	3.29 <sup>1</sup> <sub>2</sub>	3.37 <sup>1</sup> <sub>2</sub>	2.88 <sup>1</sup> <sub>2</sub>	2.88 <sup>1</sup> <sub>2</sub>	3.71	.....	2.85	3.20 <sup>1</sup> <sub>2</sub>	2.88 <sup>1</sup> <sub>2</sub>	2.06	2.47 <sup>1</sup> <sub>2</sub>	4.13 <sup>1</sup> <sub>2</sub>	3.07
1871..	3.61 <sup>1</sup> <sub>2</sub>	3.63 <sup>1</sup> <sub>2</sub>	3.16 <sup>1</sup> <sub>2</sub>	3.16 <sup>1</sup> <sub>2</sub>	4.06 <sup>1</sup> <sub>2</sub>	.....	3.09 <sup>1</sup> <sub>2</sub>	3.46 <sup>1</sup> <sub>2</sub>	3.16 <sup>1</sup> <sub>2</sub>	2.36 <sup>1</sup> <sub>2</sub>	2.71	4.11 <sup>1</sup> <sub>2</sub>	3.32 <sup>1</sup> <sub>2</sub>
1872..	3.66 <sup>1</sup> <sub>2</sub>	3.68	4.58 <sup>1</sup> <sub>2</sub>	4.58 <sup>1</sup> <sub>2</sub>	4.12 <sup>1</sup> <sub>2</sub>	.....	3.45 <sup>1</sup> <sub>2</sub>	3.75 <sup>1</sup> <sub>2</sub>	3.20 <sup>1</sup> <sub>2</sub>	2.25 <sup>1</sup> <sub>2</sub>	2.75	4.07 <sup>1</sup> <sub>2</sub>	3.64 <sup>1</sup> <sub>2</sub>
1873..	3.55	3.99 <sup>1</sup> <sub>2</sub>	2.66 <sup>1</sup> <sub>2</sub>	3.99 <sup>1</sup> <sub>2</sub>	3.99 <sup>1</sup> <sub>2</sub>	.....	3.31 <sup>1</sup> <sub>2</sub>	3.51 <sup>1</sup> <sub>2</sub>	3.10 <sup>1</sup> <sub>2</sub>	2.21 <sup>1</sup> <sub>2</sub>	2.66 <sup>1</sup> <sub>2</sub>	4.07 <sup>1</sup> <sub>2</sub>	3.37 <sup>1</sup> <sub>2</sub>
1874..	3.59	3.56 <sup>1</sup> <sub>2</sub>	2.24 <sup>1</sup> <sub>2</sub>	3.59	4.04 <sup>1</sup> <sub>2</sub>	.....	3.36 <sup>1</sup> <sub>2</sub>	3.06 <sup>1</sup> <sub>2</sub>	2.69 <sup>1</sup> <sub>2</sub>	2.21 <sup>1</sup> <sub>2</sub>	2.69 <sup>1</sup> <sub>2</sub>	4.04 <sup>1</sup> <sub>2</sub>	3.19
1875..	3.55 <sup>1</sup> <sub>2</sub>	2.75 <sup>1</sup> <sub>2</sub>	2.00	3.55 <sup>1</sup> <sub>2</sub>	3.55 <sup>1</sup> <sub>2</sub>	.....	3.32 <sup>1</sup> <sub>2</sub>	2.66 <sup>1</sup> <sub>2</sub>	2.66 <sup>1</sup> <sub>2</sub>	2.13 <sup>1</sup> <sub>2</sub>	2.66 <sup>1</sup> <sub>2</sub>	4.04 <sup>1</sup> <sub>2</sub>	2.99 <sup>1</sup> <sub>2</sub>
1876..	2.66	2.44	2.21 <sup>1</sup> <sub>2</sub>	2.88	3.32 <sup>1</sup> <sub>2</sub>	.....	2.93	2.21 <sup>1</sup> <sub>2</sub>	2.66	2.55 <sup>1</sup> <sub>2</sub>	2.66	3.77	2.75 <sup>1</sup> <sub>2</sub>
1877..	2.82 <sup>1</sup> <sub>2</sub>	2.46 <sup>1</sup> <sub>2</sub>	2.35 <sup>1</sup> <sub>2</sub>	2.35 <sup>1</sup> <sub>2</sub>	2.35 <sup>1</sup> <sub>2</sub>	.....	2.69 <sup>1</sup> <sub>2</sub>	2.11 <sup>1</sup> <sub>2</sub>	2.82 <sup>1</sup> <sub>2</sub>	2.52	3.04 <sup>1</sup> <sub>2</sub>	3.79	2.66 <sup>1</sup> <sub>2</sub>
1878..	2.95 <sup>1</sup> <sub>2</sub>	2.78 <sup>1</sup> <sub>2</sub>	2.46 <sup>1</sup> <sub>2</sub>	2.22	2.46 <sup>1</sup> <sub>2</sub>	.....	2.46 <sup>1</sup> <sub>2</sub>	2.40 <sup>1</sup> <sub>2</sub>	2.95 <sup>1</sup> <sub>2</sub>	2.59	3.45 <sup>1</sup> <sub>2</sub>	3.66 <sup>1</sup> <sub>2</sub>	2.76 <sup>1</sup> <sub>2</sub>
1879..	3.00	2.68	2.50	2.25	2.50	.....	2.07	2.25	3.00	2.67 <sup>1</sup> <sub>2</sub>	3.50	3.70	2.74
1880..	3.00	2.58 <sup>1</sup> <sub>2</sub>	3.00	2.09	2.50	.....	2.49 <sup>1</sup> <sub>2</sub>	2.51 <sup>1</sup> <sub>2</sub>	3.00	2.78 <sup>1</sup> <sub>2</sub>	3.50	3.66 <sup>1</sup> <sub>2</sub>	2.83
1881..	3.00	3.14 <sup>1</sup> <sub>2</sub>	3.00	2.83 <sup>1</sup> <sub>2</sub>	2.75	.....	2.76 <sup>1</sup> <sub>2</sub>	3.25	3.00	2.80	3.50	3.67 <sup>1</sup> <sub>2</sub>	3.06 <sup>1</sup> <sub>2</sub>
1882..	3.00	2.79 <sup>1</sup> <sub>2</sub>	3.00	3.08	3.00	.....	3.29 <sup>1</sup> <sub>2</sub>	3.37 <sup>1</sup> <sub>2</sub>	3.00	3.06 <sup>1</sup> <sub>2</sub>	3.50	3.65	3.16
1883..	3.00	3.01 <sup>1</sup> <sub>2</sub>	3.00	3.39	2.75	.....	3.28 <sup>1</sup> <sub>2</sub>	3.53	3.00	3.06 <sup>1</sup> <sub>2</sub>	3.50	3.64 <sup>1</sup> <sub>2</sub>	3.19 <sup>1</sup> <sub>2</sub>
1884..	3.00	3.60 <sup>1</sup> <sub>2</sub>	3.00	3.50	2.50	.....	3.27 <sup>1</sup> <sub>2</sub>	3.55 <sup>1</sup> <sub>2</sub>	3.00	2.81 <sup>1</sup> <sub>2</sub>	3.50	3.61 <sup>1</sup> <sub>2</sub>	3.21 <sup>1</sup> <sub>2</sub>
1885..	3.00	3.03	3.00	3.15	2.50	.....	3.28 <sup>1</sup> <sub>2</sub>	3.60	3.00	2.81 <sup>1</sup> <sub>2</sub>	3.50	3.61 <sup>1</sup> <sub>2</sub>	3.14
1886..	3.25	3.02 <sup>1</sup> <sub>2</sub>	3.50	3.60	2.50	.....	3.03	3.60	3.00	2.87 <sup>1</sup> <sub>2</sub>	3.50	3.64 <sup>1</sup> <sub>2</sub>	3.23
1887..	3.25	3.16 <sup>1</sup> <sub>2</sub>	3.50	3.79	2.50	.....	3.04 <sup>1</sup> <sub>2</sub>	3.61 <sup>1</sup> <sub>2</sub>	3.00	3.00	3.50	3.63 <sup>1</sup> <sub>2</sub>	3.27 <sup>1</sup> <sub>2</sub>
1888..	3.60	3.08 <sup>1</sup> <sub>2</sub>	3.50	4.05	2.50	.....	3.28 <sup>1</sup> <sub>2</sub>	3.63 <sup>1</sup> <sub>2</sub>	3.00	3.12 <sup>1</sup> <sub>2</sub>	3.50	3.67 <sup>1</sup> <sub>2</sub>	3.36
1889..	3.60	3.16	3.50	4.05	2.50	.....	3.33	3.81	3.00	3.12 <sup>1</sup> <sub>2</sub>	3.50	3.68 <sup>1</sup> <sub>2</sub>	3.38 <sup>1</sup> <sub>2</sub>
1890..	3.60	3.32 <sup>1</sup> <sub>2</sub>	4.00	4.05	2.50	.....	3.27 <sup>1</sup> <sub>2</sub>	3.70	3.00	3.36 <sup>1</sup> <sub>2</sub>	3.50	3.67 <sup>1</sup> <sub>2</sub>	3.45 <sup>1</sup> <sub>2</sub>
1891..	3.56 <sup>1</sup> <sub>2</sub>	3.32 <sup>1</sup> <sub>2</sub>	4.00	4.05	2.50	.....	3.52	3.97 <sup>1</sup> <sub>2</sub>	3.00	3.41 <sup>1</sup> <sub>2</sub>	3.50	3.68 <sup>1</sup> <sub>2</sub>	3.50 <sup>1</sup> <sub>2</sub>
1892..	3.44	2.94 <sup>1</sup> <sub>2</sub>	4.50	4.05	2.50	.....	3.51 <sup>1</sup> <sub>2</sub>	3.97 <sup>1</sup> <sub>2</sub>	3.00	3.51 <sup>1</sup> <sub>2</sub>	3.37 <sup>1</sup> <sub>2</sub>	3.64 <sup>1</sup> <sub>2</sub>	3.49 <sup>1</sup> <sub>2</sub>
1893..	3.44	2.76	4.00	4.02 <sup>1</sup> <sub>2</sub>	2.50	.....	3.51 <sup>1</sup> <sub>2</sub>	4.12 <sup>1</sup> <sub>2</sub>	3.00	3.65 <sup>1</sup> <sub>2</sub>	3.39 <sup>1</sup> <sub>2</sub>	3.60 <sup>1</sup> <sub>2</sub>	3.45 <sup>1</sup> <sub>2</sub>
1894..	3.44	2.81	4.00	3.60	2.62 <sup>1</sup> <sub>2</sub>	.....	3.53 <sup>1</sup> <sub>2</sub>	3.60	3.00	3.14 <sup>1</sup> <sub>2</sub>	3.39 <sup>1</sup> <sub>2</sub>	3.62 <sup>1</sup> <sub>2</sub>	3.34 <sup>1</sup> <sub>2</sub>
1895..	3.44	2.51 <sup>1</sup> <sub>2</sub>	4.00	3.60	3.00	.....	3.53 <sup>1</sup> <sub>2</sub>	3.60	3.00	3.30	3.39 <sup>1</sup> <sub>2</sub>	3.62 <sup>1</sup> <sub>2</sub>	3.36 <sup>1</sup> <sub>2</sub>
1896..	3.44	2.66 <sup>1</sup> <sub>2</sub>	4.00	3.60	2.50	.....	3.53 <sup>1</sup> <sub>2</sub>	3.60	3.00	3.30	3.39 <sup>1</sup> <sub>2</sub>	3.67 <sup>1</sup> <sub>2</sub>	3.33 <sup>1</sup> <sub>2</sub>
1897..	3.44	2.82 <sup>1</sup> <sub>2</sub>	4.00	3.60	2.75	.....	3.08 <sup>1</sup> <sub>2</sub>	3.60	3.00	3.05 <sup>1</sup> <sub>2</sub>	3.39 <sup>1</sup> <sub>2</sub>	3.61	3.30 <sup>1</sup> <sub>2</sub>
1898..	3.44	2.94 <sup>1</sup> <sub>2</sub>	4.50	3.00	2.75	.....	3.15	3.60	2.66 <sup>1</sup> <sub>2</sub>	2.56 <sup>1</sup> <sub>2</sub>	3.39 <sup>1</sup> <sub>2</sub>	3.51 <sup>1</sup> <sub>2</sub>	3.23



TABLE I.—AVERAGE DAILY WAGES IN GOLD IN CERTAIN CITIES OF THE UNITED STATES, 1870 TO 1893—Concluded.

[The wages for the years 1870 to 1878, inclusive, except in the case of San Francisco, were reported in currency. In converting wages in currency into wages in gold the value of \$100 gold in currency for January of each year from 1870 to 1877 and the average value for the entire year 1878, as given in the American Almanac for 1879, have been used, as follows: 1870, \$121.3; 1871, \$110.7; 1872, \$109.1; 1873, \$112.7; 1874, \$111.4; 1875, \$112.5; 1876, \$112.8; 1877, \$106.2, and 1878, \$101.4.]

TEAMSTERS.

Year.	Balti- more.	Bos- ton.	Chi- cago.	Cin- cinnati.	New Or- leans.	New York.	Phila- del- phia.	Pitts- burg and Alle- gheny.	Rich- mond.	St. Louis.	St. Paul.	San Fran- cisco.	Aver- age.
1870..	\$1.48 <sup>3</sup> / <sub>4</sub>	\$1.62 <sup>1</sup> / <sub>2</sub>	\$1.74 <sup>1</sup> / <sub>2</sub>	\$1.49 <sup>1</sup> / <sub>2</sub>	\$1.86	\$1.69 <sup>1</sup> / <sub>2</sub>	\$1.37 <sup>1</sup> / <sub>2</sub>	\$1.69 <sup>1</sup> / <sub>2</sub>	\$0.82 <sup>1</sup> / <sub>2</sub>	\$1.38	\$1.23 <sup>3</sup> / <sub>4</sub>	\$2.63 <sup>1</sup> / <sub>2</sub>	\$1.58 <sup>3</sup> / <sub>4</sub>
1871..	1.63	1.80 <sup>1</sup> / <sub>4</sub>	1.90 <sup>1</sup> / <sub>2</sub>	1.69 <sup>1</sup> / <sub>2</sub>	2.06 <sup>3</sup> / <sub>4</sub>	1.85 <sup>3</sup> / <sub>4</sub>	1.50 <sup>3</sup> / <sub>4</sub>	1.75 <sup>3</sup> / <sub>4</sub>	1.13	1.51	1.35 <sup>1</sup> / <sub>2</sub>	2.64	1.73 <sup>1</sup> / <sub>4</sub>
1872..	1.65 <sup>1</sup> / <sub>2</sub>	1.77	1.91 <sup>1</sup> / <sub>2</sub>	1.81 <sup>1</sup> / <sub>2</sub>	2.13 <sup>1</sup> / <sub>2</sub>	1.88 <sup>1</sup> / <sub>4</sub>	1.53 <sup>3</sup> / <sub>4</sub>	1.98 <sup>3</sup> / <sub>4</sub>	1.14 <sup>1</sup> / <sub>2</sub>	1.53 <sup>1</sup> / <sub>2</sub>	1.37 <sup>1</sup> / <sub>2</sub>	2.63 <sup>3</sup> / <sub>4</sub>	1.78 <sup>1</sup> / <sub>4</sub>
1873..	1.60 <sup>1</sup> / <sub>4</sub>	1.62 <sup>1</sup> / <sub>2</sub>	1.78 <sup>1</sup> / <sub>2</sub>	1.87 <sup>1</sup> / <sub>4</sub>	2.06 <sup>3</sup> / <sub>4</sub>	1.82 <sup>1</sup> / <sub>4</sub>	1.46 <sup>3</sup> / <sub>4</sub>	1.87 <sup>1</sup> / <sub>4</sub>	1.11	1.49 <sup>1</sup> / <sub>2</sub>	1.33	2.64	1.72 <sup>1</sup> / <sub>2</sub>
1874..	1.62	1.97 <sup>1</sup> / <sub>2</sub>	1.81 <sup>1</sup> / <sub>2</sub>	1.61 <sup>1</sup> / <sub>2</sub>	2.06	1.88 <sup>1</sup> / <sub>2</sub>	1.50 <sup>1</sup> / <sub>2</sub>	1.79 <sup>1</sup> / <sub>2</sub>	1.12 <sup>1</sup> / <sub>4</sub>	1.51	1.34 <sup>3</sup> / <sub>4</sub>	2.62 <sup>1</sup> / <sub>2</sub>	1.74
1875..	1.60 <sup>1</sup> / <sub>2</sub>	1.83 <sup>1</sup> / <sub>2</sub>	1.80 <sup>1</sup> / <sub>4</sub>	1.63	2.09 <sup>1</sup> / <sub>2</sub>	1.87 <sup>3</sup> / <sub>4</sub>	1.48 <sup>1</sup> / <sub>4</sub>	1.63	1.11	1.49 <sup>3</sup> / <sub>4</sub>	1.33 <sup>1</sup> / <sub>4</sub>	2.62 <sup>1</sup> / <sub>2</sub>	1.71
1876..	1.60	1.78 <sup>1</sup> / <sub>2</sub>	1.79 <sup>1</sup> / <sub>4</sub>	1.73 <sup>3</sup> / <sub>4</sub>	2.05 <sup>3</sup> / <sub>4</sub>	1.88	1.52 <sup>3</sup> / <sub>4</sub>	1.60	1.10 <sup>3</sup> / <sub>4</sub>	1.49 <sup>1</sup> / <sub>2</sub>	1.33	2.62 <sup>1</sup> / <sub>2</sub>	1.71 <sup>1</sup> / <sub>4</sub>
1877..	1.70	1.84 <sup>1</sup> / <sub>4</sub>	1.91 <sup>1</sup> / <sub>2</sub>	1.84 <sup>1</sup> / <sub>4</sub>	2.19 <sup>1</sup> / <sub>2</sub>	2.00	1.61 <sup>1</sup> / <sub>4</sub>	1.57	1.17 <sup>3</sup> / <sub>4</sub>	1.58 <sup>1</sup> / <sub>2</sub>	1.41 <sup>1</sup> / <sub>4</sub>	2.63 <sup>3</sup> / <sub>4</sub>	1.79
1878..	1.78	1.93 <sup>1</sup> / <sub>2</sub>	2.01 <sup>3</sup> / <sub>4</sub>	1.72 <sup>1</sup> / <sub>2</sub>	2.22 <sup>3</sup> / <sub>4</sub>	2.10	1.69 <sup>3</sup> / <sub>4</sub>	1.61 <sup>3</sup> / <sub>4</sub>	1.23 <sup>1</sup> / <sub>4</sub>	1.65 <sup>1</sup> / <sub>2</sub>	1.72 <sup>1</sup> / <sub>2</sub>	2.63 <sup>3</sup> / <sub>4</sub>	1.86 <sup>1</sup> / <sub>4</sub>
1879..	1.80 <sup>1</sup> / <sub>2</sub>	1.85 <sup>1</sup> / <sub>2</sub>	2.04 <sup>3</sup> / <sub>4</sub>	1.70 <sup>3</sup> / <sub>4</sub>	2.21 <sup>3</sup> / <sub>4</sub>	2.13 <sup>1</sup> / <sub>4</sub>	1.70 <sup>3</sup> / <sub>4</sub>	1.69 <sup>1</sup> / <sub>2</sub>	1.25	1.68 <sup>1</sup> / <sub>2</sub>	1.75	2.65 <sup>1</sup> / <sub>4</sub>	1.87 <sup>1</sup> / <sub>2</sub>
1880..	1.80 <sup>1</sup> / <sub>2</sub>	1.84 <sup>1</sup> / <sub>4</sub>	2.04 <sup>3</sup> / <sub>4</sub>	1.81 <sup>1</sup> / <sub>4</sub>	2.21 <sup>3</sup> / <sub>4</sub>	2.13 <sup>3</sup> / <sub>4</sub>	1.70 <sup>3</sup> / <sub>4</sub>	1.83 <sup>1</sup> / <sub>4</sub>	1.25	1.69	1.61 <sup>3</sup> / <sub>4</sub>	2.67 <sup>3</sup> / <sub>4</sub>	1.88 <sup>3</sup> / <sub>4</sub>
1881..	1.80 <sup>1</sup> / <sub>2</sub>	1.75 <sup>3</sup> / <sub>4</sub>	2.05 <sup>1</sup> / <sub>2</sub>	1.87 <sup>1</sup> / <sub>2</sub>	2.21 <sup>3</sup> / <sub>4</sub>	2.14	1.72 <sup>1</sup> / <sub>4</sub>	1.81 <sup>1</sup> / <sub>4</sub>	1.25	1.68 <sup>1</sup> / <sub>2</sub>	1.61 <sup>3</sup> / <sub>4</sub>	2.64 <sup>1</sup> / <sub>2</sub>	1.88 <sup>1</sup> / <sub>4</sub>
1882..	1.80 <sup>1</sup> / <sub>2</sub>	1.87	2.04 <sup>1</sup> / <sub>2</sub>	1.85	2.18 <sup>1</sup> / <sub>4</sub>	2.14	1.72	1.93	1.25	1.68 <sup>3</sup> / <sub>4</sub>	1.61 <sup>3</sup> / <sub>4</sub>	2.62 <sup>1</sup> / <sub>4</sub>	1.89 <sup>1</sup> / <sub>4</sub>
1883..	1.80 <sup>1</sup> / <sub>2</sub>	1.91 <sup>1</sup> / <sub>4</sub>	2.05 <sup>1</sup> / <sub>2</sub>	1.71 <sup>1</sup> / <sub>2</sub>	2.25 <sup>3</sup> / <sub>4</sub>	2.13 <sup>1</sup> / <sub>4</sub>	1.72 <sup>1</sup> / <sub>4</sub>	1.97 <sup>1</sup> / <sub>2</sub>	1.25	1.68	1.75	2.63	1.90 <sup>3</sup> / <sub>4</sub>
1884..	1.55 <sup>1</sup> / <sub>2</sub>	1.96	2.03 <sup>3</sup> / <sub>4</sub>	1.75	2.29 <sup>1</sup> / <sub>2</sub>	2.12 <sup>3</sup> / <sub>4</sub>	1.73 <sup>1</sup> / <sub>2</sub>	1.93 <sup>1</sup> / <sub>4</sub>	1.25	1.69	1.75	2.62 <sup>3</sup> / <sub>4</sub>	1.89 <sup>1</sup> / <sub>4</sub>
1885..	1.55 <sup>1</sup> / <sub>2</sub>	1.97 <sup>1</sup> / <sub>2</sub>	2.02 <sup>1</sup> / <sub>2</sub>	1.70 <sup>3</sup> / <sub>4</sub>	2.30 <sup>1</sup> / <sub>2</sub>	2.11 <sup>1</sup> / <sub>2</sub>	1.73 <sup>1</sup> / <sub>4</sub>	1.90 <sup>3</sup> / <sub>4</sub>	1.25	1.68 <sup>3</sup> / <sub>4</sub>	1.75	2.62 <sup>3</sup> / <sub>4</sub>	1.88 <sup>3</sup> / <sub>4</sub>
1886..	1.55 <sup>1</sup> / <sub>2</sub>	2.00	2.04	1.93 <sup>1</sup> / <sub>4</sub>	2.21 <sup>3</sup> / <sub>4</sub>	2.11 <sup>1</sup> / <sub>2</sub>	1.73 <sup>1</sup> / <sub>4</sub>	1.95 <sup>1</sup> / <sub>4</sub>	1.50	1.68 <sup>3</sup> / <sub>4</sub>	1.75	2.61 <sup>3</sup> / <sub>4</sub>	1.92 <sup>3</sup> / <sub>8</sub>
1887..	1.55 <sup>1</sup> / <sub>2</sub>	1.98	2.05	1.83 <sup>1</sup> / <sub>4</sub>	2.33 <sup>1</sup> / <sub>2</sub>	2.11 <sup>1</sup> / <sub>2</sub>	1.73 <sup>1</sup> / <sub>4</sub>	1.93	1.50	1.90 <sup>3</sup> / <sub>4</sub>	1.75	2.60	1.94
1888..	1.55 <sup>1</sup> / <sub>2</sub>	2.03	2.04	1.83 <sup>1</sup> / <sub>4</sub>	2.35 <sup>3</sup> / <sub>4</sub>	2.11 <sup>1</sup> / <sub>2</sub>	1.73	1.98	1.50	1.91	1.75	2.60 <sup>1</sup> / <sub>4</sub>	1.95
1889..	1.55 <sup>1</sup> / <sub>2</sub>	2.10 <sup>1</sup> / <sub>2</sub>	2.04 <sup>1</sup> / <sub>4</sub>	1.84 <sup>1</sup> / <sub>2</sub>	2.10	2.12	1.74	2.02 <sup>1</sup> / <sub>2</sub>	1.50	1.90 <sup>1</sup> / <sub>2</sub>	1.75	2.60 <sup>3</sup> / <sub>4</sub>	1.94 <sup>1</sup> / <sub>4</sub>
1890..	1.55 <sup>1</sup> / <sub>2</sub>	2.06	2.04	1.88 <sup>1</sup> / <sub>4</sub>	2.10	2.12 <sup>1</sup> / <sub>2</sub>	1.71 <sup>1</sup> / <sub>4</sub>	2.12	1.50	1.90 <sup>1</sup> / <sub>2</sub>	1.75	2.61	1.94 <sup>3</sup> / <sub>4</sub>
1891..	1.55 <sup>1</sup> / <sub>2</sub>	2.11 <sup>1</sup> / <sub>4</sub>	2.02 <sup>1</sup> / <sub>4</sub>	1.88 <sup>1</sup> / <sub>4</sub>	2.10	2.12 <sup>1</sup> / <sub>2</sub>	1.70 <sup>1</sup> / <sub>4</sub>	2.12	1.50	1.90 <sup>1</sup> / <sub>2</sub>	1.75	2.59 <sup>1</sup> / <sub>4</sub>	1.94 <sup>3</sup> / <sub>4</sub>
1892..	1.55 <sup>1</sup> / <sub>2</sub>	2.02 <sup>1</sup> / <sub>2</sub>	2.02 <sup>1</sup> / <sub>4</sub>	1.93 <sup>1</sup> / <sub>4</sub>	2.16 <sup>1</sup> / <sub>2</sub>	2.13	1.72 <sup>1</sup> / <sub>4</sub>	2.12	1.50	1.90 <sup>1</sup> / <sub>2</sub>	1.75	2.58 <sup>1</sup> / <sub>2</sub>	1.95
1893..	1.55 <sup>1</sup> / <sub>2</sub>	2.04 <sup>1</sup> / <sub>4</sub>	2.02 <sup>1</sup> / <sub>2</sub>	1.84 <sup>1</sup> / <sub>2</sub>	1.91 <sup>1</sup> / <sub>4</sub>	2.13 <sup>1</sup> / <sub>2</sub>	1.71 <sup>1</sup> / <sub>2</sub>	2.12	1.50	1.90 <sup>1</sup> / <sub>4</sub>	1.75	2.36 <sup>1</sup> / <sub>4</sub>	1.90 <sup>1</sup> / <sub>2</sub>
1894..	1.55 <sup>1</sup> / <sub>2</sub>	2.05 <sup>1</sup> / <sub>4</sub>	2.04 <sup>1</sup> / <sub>3</sub>	1.79 <sup>1</sup> / <sub>4</sub>	1.92 <sup>3</sup> / <sub>4</sub>	2.13 <sup>1</sup> / <sub>4</sub>	1.70	2.10 <sup>1</sup> / <sub>2</sub>	1.50	1.89 <sup>1</sup> / <sub>2</sub>	1.75	2.36 <sup>1</sup> / <sub>2</sub>	1.90 <sup>1</sup> / <sub>4</sub>
1895..	1.55 <sup>1</sup> / <sub>2</sub>	2.01	2.04 <sup>1</sup> / <sub>2</sub>	1.83 <sup>1</sup> / <sub>4</sub>	1.91 <sup>1</sup> / <sub>2</sub>	2.12 <sup>3</sup> / <sub>4</sub>	1.69 <sup>1</sup> / <sub>4</sub>	2.10 <sup>1</sup> / <sub>2</sub>	1.50	1.89 <sup>3</sup> / <sub>4</sub>	1.75	2.37	1.90
1896..	1.55 <sup>1</sup> / <sub>2</sub>	2.03 <sup>3</sup> / <sub>4</sub>	2.02 <sup>2</sup> / <sub>4</sub>	1.82 <sup>1</sup> / <sub>4</sub>	1.77	2.07 <sup>3</sup> / <sub>4</sub>	1.72 <sup>1</sup> / <sub>4</sub>	2.10 <sup>1</sup> / <sub>2</sub>	1.50	1.89 <sup>3</sup> / <sub>4</sub>	1.75	2.37	1.88 <sup>3</sup> / <sub>4</sub>
1897..	1.55 <sup>1</sup> / <sub>2</sub>	1.99 <sup>3</sup> / <sub>4</sub>	2.01 <sup>1</sup> / <sub>2</sub>	1.85	1.77	2.07 <sup>3</sup> / <sub>4</sub>	1.70 <sup>3</sup> / <sub>4</sub>	2.02 <sup>1</sup> / <sub>4</sub>	1.50	1.89 <sup>3</sup> / <sub>4</sub>	1.75	2.38 <sup>1</sup> / <sub>4</sub>	1.87 <sup>3</sup> / <sub>4</sub>
1898..	1.55 <sup>1</sup> / <sub>2</sub>	2.09 <sup>1</sup> / <sub>4</sub>	2.00 <sup>1</sup> / <sub>2</sub>	1.85	1.77 <sup>3</sup> / <sub>4</sub>	2.07 <sup>3</sup> / <sub>4</sub>	1.70 <sup>1</sup> / <sub>4</sub>	2.02 <sup>1</sup> / <sub>4</sub>	1.50	1.89 <sup>3</sup> / <sub>4</sub>	1.75	2.38	1.88 <sup>1</sup> / <sub>2</sub>



TABLE II.—AVERAGE DAILY WAGES IN CERTAIN CITIES OF GREAT BRITAIN, FRANCE, AND BELGIUM, 1870 TO 1896.

BLACKSMITHS.

Year.	Great Britain.				Paris, France.	Liege, Belgium.
	London.	Man- chester.	Glasgow.	Average.		
1870.....	(a)	\$1. 29 <sup>3</sup> / <sub>4</sub>	\$1. 09 <sup>1</sup> / <sub>2</sub>	\$1. 19 <sup>3</sup> / <sub>4</sub>	\$1. 19 <sup>1</sup> / <sub>2</sub>	\$0. 68 <sup>1</sup> / <sub>2</sub>
1871.....	\$1. 46	1. 29 <sup>3</sup> / <sub>4</sub>	1. 09 <sup>1</sup> / <sub>2</sub>	1. 28 <sup>1</sup> / <sub>2</sub>	1. 19 <sup>1</sup> / <sub>2</sub>	. 80
1872.....	1. 46	1. 29 <sup>3</sup> / <sub>4</sub>	1. 09 <sup>1</sup> / <sub>2</sub>	1. 28 <sup>1</sup> / <sub>2</sub>	1. 19 <sup>1</sup> / <sub>2</sub>	. 81
1873.....	1. 46	1. 29 <sup>3</sup> / <sub>4</sub>	1. 13 <sup>1</sup> / <sub>2</sub>	1. 29 <sup>1</sup> / <sub>2</sub>	1. 19 <sup>1</sup> / <sub>2</sub>	. 90
1874.....	1. 46	1. 29 <sup>3</sup> / <sub>4</sub>	1. 17 <sup>3</sup> / <sub>4</sub>	1. 31 <sup>1</sup> / <sub>4</sub>	1. 19 <sup>1</sup> / <sub>2</sub>	. 88
1875.....	1. 46	1. 29 <sup>3</sup> / <sub>4</sub>	1. 17 <sup>3</sup> / <sub>4</sub>	1. 31 <sup>1</sup> / <sub>4</sub>	1. 23	. 80 <sup>3</sup> / <sub>4</sub>
1876.....	1. 54 <sup>1</sup> / <sub>4</sub>	1. 29 <sup>3</sup> / <sub>4</sub>	1. 17 <sup>3</sup> / <sub>4</sub>	1. 34	1. 23	. 76 <sup>3</sup> / <sub>4</sub>
1877.....	1. 54 <sup>1</sup> / <sub>4</sub>	1. 38	1. 13 <sup>1</sup> / <sub>2</sub>	1. 35 <sup>1</sup> / <sub>4</sub>	1. 23	. 76 <sup>3</sup> / <sub>4</sub>
1878.....	1. 54 <sup>1</sup> / <sub>4</sub>	1. 38	1. 09 <sup>1</sup> / <sub>2</sub>	1. 34	1. 23	. 70
1879.....	1. 54 <sup>1</sup> / <sub>4</sub>	1. 38	1. 09 <sup>1</sup> / <sub>2</sub>	1. 34	1. 23	. 74
1880.....	1. 54 <sup>1</sup> / <sub>4</sub>	1. 38	1. 21 <sup>3</sup> / <sub>4</sub>	1. 38	1. 30 <sup>1</sup> / <sub>2</sub>	. 75 <sup>1</sup> / <sub>2</sub>
1881.....	1. 54 <sup>1</sup> / <sub>4</sub>	1. 38	1. 17 <sup>3</sup> / <sub>4</sub>	1. 36 <sup>3</sup> / <sub>4</sub>	1. 30 <sup>1</sup> / <sub>2</sub>	. 85 <sup>3</sup> / <sub>4</sub>
1882.....	1. 54 <sup>1</sup> / <sub>4</sub>	1. 38	1. 21 <sup>3</sup> / <sub>4</sub>	1. 38	1. 30 <sup>3</sup> / <sub>4</sub>	. 87
1883.....	1. 54 <sup>1</sup> / <sub>4</sub>	1. 28	1. 21 <sup>3</sup> / <sub>4</sub>	1. 38	1. 30 <sup>1</sup> / <sub>2</sub>	. 79 <sup>3</sup> / <sub>4</sub>
1884.....	1. 54 <sup>1</sup> / <sub>4</sub>	1. 38	1. 21 <sup>3</sup> / <sub>4</sub>	1. 38	1. 30 <sup>3</sup> / <sub>4</sub>	. 80 <sup>1</sup> / <sub>4</sub>
1885.....	1. 54 <sup>1</sup> / <sub>4</sub>	1. 38	1. 21 <sup>3</sup> / <sub>4</sub>	1. 38	1. 30 <sup>3</sup> / <sub>4</sub>	. 78 <sup>1</sup> / <sub>4</sub>
1886.....	1. 54 <sup>1</sup> / <sub>4</sub>	1. 38	1. 17 <sup>3</sup> / <sub>4</sub>	1. 36 <sup>3</sup> / <sub>4</sub>	1. 38 <sup>1</sup> / <sub>4</sub>	. 78 <sup>3</sup> / <sub>4</sub>
1887.....	1. 54 <sup>1</sup> / <sub>4</sub>	1. 38	1. 17 <sup>3</sup> / <sub>4</sub>	1. 36 <sup>3</sup> / <sub>4</sub>	1. 39 <sup>1</sup> / <sub>2</sub>	. 79 <sup>1</sup> / <sub>4</sub>
1888.....	1. 54 <sup>1</sup> / <sub>4</sub>	1. 38	1. 21 <sup>3</sup> / <sub>4</sub>	1. 38	1. 41 <sup>1</sup> / <sub>2</sub>	. 81
1889.....	1. 54 <sup>1</sup> / <sub>4</sub>	1. 29 <sup>3</sup> / <sub>4</sub>	1. 25 <sup>3</sup> / <sub>4</sub>	1. 36 <sup>1</sup> / <sub>2</sub>	1. 41 <sup>1</sup> / <sub>2</sub>	. 78 <sup>1</sup> / <sub>2</sub>
1890.....	1. 54 <sup>1</sup> / <sub>4</sub>	1. 38	1. 25 <sup>3</sup> / <sub>4</sub>	1. 39 <sup>1</sup> / <sub>4</sub>	1. 56 <sup>1</sup> / <sub>2</sub>	. 78 <sup>3</sup> / <sub>4</sub>
1891.....	1. 62 <sup>1</sup> / <sub>4</sub>	1. 38	1. 29 <sup>3</sup> / <sub>4</sub>	1. 43 <sup>1</sup> / <sub>4</sub>	1. 56 <sup>1</sup> / <sub>2</sub>	. 84 <sup>1</sup> / <sub>2</sub>
1892.....	1. 62 <sup>1</sup> / <sub>4</sub>	1. 38	1. 33 <sup>3</sup> / <sub>4</sub>	1. 44 <sup>3</sup> / <sub>4</sub>	1. 56 <sup>1</sup> / <sub>2</sub>	. 87
1893.....	1. 62 <sup>1</sup> / <sub>4</sub>	1. 38	1. 41	1. 47	1. 56 <sup>1</sup> / <sub>2</sub>	. 87 <sup>1</sup> / <sub>4</sub>
1894.....	1. 62 <sup>1</sup> / <sub>4</sub>	1. 38	1. 36	1. 45 <sup>1</sup> / <sub>2</sub>	1. 71 <sup>1</sup> / <sub>2</sub>	. 89 <sup>3</sup> / <sub>4</sub>
1895.....	1. 62 <sup>1</sup> / <sub>4</sub>	1. 38	1. 44	1. 48	1. 71 <sup>1</sup> / <sub>2</sub>	. 82 <sup>1</sup> / <sub>4</sub>
1896.....	1. 62 <sup>1</sup> / <sub>4</sub>	1. 46	1. 48	1. 52	1. 71 <sup>1</sup> / <sub>2</sub>	. 89 <sup>1</sup> / <sub>2</sub>

a Not reported.

BLACKSMITHS' HELPER.

1870.....	. 81 <sup>1</sup> / <sub>4</sub>	. 73	. 77 <sup>1</sup> / <sub>4</sub>	. 78 <sup>1</sup> / <sub>2</sub>	. 53 <sup>1</sup> / <sub>2</sub>
1871.....	. 81 <sup>1</sup> / <sub>4</sub>	. 73	. 77 <sup>1</sup> / <sub>4</sub>	. 78 <sup>1</sup> / <sub>2</sub>	. 53
1872.....	. 81 <sup>1</sup> / <sub>4</sub>	. 73	. 77 <sup>1</sup> / <sub>4</sub>	. 79 <sup>1</sup> / <sub>4</sub>	. 51
1873.....	. 81 <sup>1</sup> / <sub>4</sub>	. 73	. 77 <sup>1</sup> / <sub>4</sub>	. 79 <sup>1</sup> / <sub>4</sub>	. 56 <sup>1</sup> / <sub>4</sub>
1874.....	. 81 <sup>1</sup> / <sub>4</sub>	. 73	. 77 <sup>1</sup> / <sub>4</sub>	. 79 <sup>1</sup> / <sub>4</sub>	. 59 <sup>1</sup> / <sub>4</sub>
1875.....	. 81 <sup>1</sup> / <sub>4</sub>	. 73	. 77 <sup>1</sup> / <sub>4</sub>	. 81	. 53
1876.....	. 85 <sup>1</sup> / <sub>2</sub>	. 73	. 79 <sup>1</sup> / <sub>4</sub>	. 81	. 52
1877.....	. 85 <sup>1</sup> / <sub>2</sub>	. 73	. 79 <sup>1</sup> / <sub>4</sub>	. 81	. 50 <sup>1</sup> / <sub>2</sub>
1878.....	. 85 <sup>1</sup> / <sub>4</sub>	. 73	. 79 <sup>1</sup> / <sub>4</sub>	. 81	. 47
1879.....	. 85 <sup>1</sup> / <sub>4</sub>	. 73	. 79 <sup>1</sup> / <sub>4</sub>	. 81	. 47 <sup>3</sup> / <sub>4</sub>
1880.....	. 85 <sup>1</sup> / <sub>2</sub>	. 75	. 80 <sup>1</sup> / <sub>4</sub>	. 82 <sup>1</sup> / <sub>2</sub>	. 51 <sup>1</sup> / <sub>2</sub>
1881.....	. 85 <sup>1</sup> / <sub>4</sub>	. 75	. 80 <sup>1</sup> / <sub>4</sub>	. 82 <sup>1</sup> / <sub>2</sub>	. 51 <sup>1</sup> / <sub>2</sub>
1882.....	. 85 <sup>1</sup> / <sub>4</sub>	. 75	. 80 <sup>1</sup> / <sub>4</sub>	. 82 <sup>1</sup> / <sub>2</sub>	. 53
1883.....	. 85 <sup>1</sup> / <sub>4</sub>	. 77	. 81 <sup>1</sup> / <sub>4</sub>	. 82 <sup>1</sup> / <sub>2</sub>	. 53
1884.....	. 85 <sup>1</sup> / <sub>4</sub>	. 75	. 80 <sup>1</sup> / <sub>4</sub>	. 82 <sup>1</sup> / <sub>2</sub>	. 52
1885.....	. 85 <sup>1</sup> / <sub>4</sub>	. 73	. 79 <sup>1</sup> / <sub>4</sub>	. 82 <sup>1</sup> / <sub>2</sub>	. 48 <sup>1</sup> / <sub>4</sub>
1886.....	. 85 <sup>1</sup> / <sub>4</sub>	. 73	. 79 <sup>1</sup> / <sub>4</sub>	. 97 <sup>1</sup> / <sub>2</sub>	. 48 <sup>1</sup> / <sub>4</sub>
1887.....	. 85 <sup>1</sup> / <sub>4</sub>	. 77	. 81 <sup>1</sup> / <sub>4</sub>	. 97 <sup>1</sup> / <sub>2</sub>	. 48 <sup>1</sup> / <sub>4</sub>
1888.....	. 85 <sup>1</sup> / <sub>4</sub>	. 79	. 82 <sup>1</sup> / <sub>4</sub>	. 97 <sup>1</sup> / <sub>2</sub>	. 48 <sup>1</sup> / <sub>4</sub>
1889.....	. 81 <sup>1</sup> / <sub>4</sub>	. 79	. 80 <sup>1</sup> / <sub>4</sub>	. 98 <sup>1</sup> / <sub>4</sub>	. 50 <sup>1</sup> / <sub>2</sub>
1890.....	. 85 <sup>1</sup> / <sub>4</sub>	. 81 <sup>1</sup> / <sub>4</sub>	. 83 <sup>1</sup> / <sub>4</sub>	. 98 <sup>1</sup> / <sub>4</sub>	. 47 <sup>1</sup> / <sub>2</sub>
1891.....	. 85 <sup>1</sup> / <sub>4</sub>	. 81 <sup>1</sup> / <sub>4</sub>	. 83 <sup>1</sup> / <sub>4</sub>	. 98 <sup>1</sup> / <sub>4</sub>	. 50 <sup>1</sup> / <sub>2</sub>
1892.....	. 85 <sup>1</sup> / <sub>4</sub>	. 85 <sup>1</sup> / <sub>4</sub>	. 85 <sup>1</sup> / <sub>4</sub>	. 98 <sup>1</sup> / <sub>4</sub>	. 51
1893.....	. 85 <sup>1</sup> / <sub>4</sub>	. 81 <sup>1</sup> / <sub>4</sub>	. 82 <sup>1</sup> / <sub>4</sub>	. 98 <sup>1</sup> / <sub>4</sub>	. 52
1894.....	. 85 <sup>1</sup> / <sub>4</sub>	. 85 <sup>1</sup> / <sub>4</sub>	. 85 <sup>1</sup> / <sub>4</sub>	. 99 <sup>1</sup> / <sub>2</sub>	. 51
1895.....	. 85 <sup>1</sup> / <sub>4</sub>	. 85 <sup>1</sup> / <sub>4</sub>	. 85 <sup>1</sup> / <sub>4</sub>	. 99 <sup>1</sup> / <sub>2</sub>	. 52 <sup>1</sup> / <sub>4</sub>
1896.....	. 93 <sup>1</sup> / <sub>4</sub>	. 85 <sup>1</sup> / <sub>4</sub>	. 89 <sup>1</sup> / <sub>4</sub>	. 99 <sup>1</sup> / <sub>2</sub>	. 53

TABLE III.—AVERAGE DAILY WAGES IN CERTAIN CITIES OF GREAT BRITAIN, FRANCE, AND BELGIUM, 1870 TO 1896—Continued.

BOILER MAKERS.

Year	Great Britain.				Paris, France.	Liege, Belgium.
	London.	Man- chester.	Glasgow.	Average.		
1870.....					\$1. 35	.....
1871.....					1. 35	.....
1872.....					1. 35	.....
1873.....					1. 35	.....
1874.....					1. 35	.....
1875.....					1. 35	.....
1876.....					1. 35	.....
1877.....					1. 35	.....
1878.....					1. 35	\$0. 72½
1879.....					1. 35	. 73¾
1880.....					1. 48½	. 73¾
1881.....					1. 48½	. 75¾
1882.....					1. 48½	. 76¾
1883.....					1. 48½	. 76¾
1884.....					1. 48½	. 76¼
1885.....					1. 48½	. 76½
1886.....					1. 48½	. 77½
1887.....					1. 48½	. 77¾
1888.....					1. 48½	. 72¾
1889.....					1. 48½	. 72
1890.....					1. 64	. 74¼
1891.....					1. 64	. 73½
1892.....					1. 64	. 73½
1893.....					1. 64	. 75
1894.....					1. 64	. 74½
1895.....					1. 64	. 74¾
1896.....					1. 64	. 75

BOILER MAKERS' HELPERS.

1870.....	\$1. 21¾	\$1. 29¾	.....	\$1. 25¾	. 77¼	.....
1871.....	1. 21¾	1. 29¾	.....	1. 25¾	. 77¼	.....
1872.....	1. 21¾	1. 29¾	.....	1. 25¾	. 77¼	.....
1873.....	1. 21¾	1. 29¾	.....	1. 25¾	. 77¼	.....
1874.....	1. 21¾	1. 29¾	.....	1. 25¾	. 77¼	.....
1875.....	1. 21¾	1. 29¾	.....	1. 25¾	. 77¼	.....
1876.....	1. 21¾	1. 29¾	.....	1. 25¾	. 77¼	.....
1877.....	1. 21¾	1. 29¾	.....	1. 25¾	. 77¼	.....
1878.....	1. 21¾	1. 29¾	.....	1. 25¾	. 77¼	. 62¾
1879.....	1. 21¾	1. 29¾	.....	1. 25¾	. 77¼	. 62¾
1880.....	1. 21¾	1. 29¾	.....	1. 25¾	. 86¾	. 62¾
1881.....	1. 21¾	1. 29¾	.....	1. 25¾	. 86¾	. 62¾
1882.....	1. 46	1. 29¾	.....	1. 38	. 86¾	. 61
1883.....	1. 46	1. 29¾	.....	1. 38	. 86¾	. 59½
1884.....	1. 46	1. 29¾	.....	1. 38	. 86¾	. 59¼
1885.....	1. 46	1. 29¾	.....	1. 38	. 86¾	. 58
1886.....	1. 46	1. 29¾	.....	1. 38	. 86¾	. 58
1887.....	1. 46	1. 29¾	.....	1. 38	. 86¾	. 59½
1888.....	1. 46	1. 29¾	.....	1. 38	. 96½	. 60¼
1889.....	1. 46	1. 29¾	.....	1. 38	. 96½	. 61
1890.....	1. 46	1. 29¾	.....	1. 38	. 96½	. 62¾
1891.....	1. 46	1. 29¾	.....	1. 38	. 96½	. 60
1892.....	1. 46	1. 29¾	.....	1. 38	. 96½	. 60
1893.....	1. 46	1. 29¾	.....	1. 38	. 96½	. 64¼
1894.....	1. 46	1. 29¾	.....	1. 38		
1895.....	1. 46	1. 29¾	.....	1. 38		
1896.....	1. 46	1. 29¾	.....	1. 38		



TABLE II.—AVERAGE DAILY WAGES IN CERTAIN CITIES OF GREAT BRITAIN, FRANCE, AND BELGIUM, 1870 TO 1896—Continued.

BRICKLAYERS.

Year.	Great Britain.				Paris, France.	Liege, Belgium.
	London.	Man- chester.	Glasgow.	Average.		
1870.....	\$1. 53	\$1. 65 <sup>3</sup> / <sub>4</sub>	\$1. 13 <sup>1</sup> / <sub>2</sub>	\$1. 44	\$1. 06 <sup>1</sup> / <sub>4</sub>	.....
1871.....	1. 53	1. 65 <sup>3</sup> / <sub>4</sub>	1. 13 <sup>1</sup> / <sub>2</sub>	1. 44	1. 06 <sup>1</sup> / <sub>4</sub>	.....
1872.....	1. 51	1. 65 <sup>3</sup> / <sub>4</sub>	1. 21 <sup>1</sup> / <sub>2</sub>	1. 46	1. 15 <sup>3</sup> / <sub>4</sub>	.....
1873.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 56 <sup>3</sup> / <sub>4</sub>	1. 21 <sup>1</sup> / <sub>2</sub>	1. 46	1. 15 <sup>3</sup> / <sub>4</sub>	.....
1874.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 56 <sup>3</sup> / <sub>4</sub>	1. 38 <sup>1</sup> / <sub>2</sub>	1. 51 <sup>1</sup> / <sub>2</sub>	1. 15 <sup>3</sup> / <sub>4</sub>	.....
1875.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 65 <sup>3</sup> / <sub>4</sub>	1. 38 <sup>1</sup> / <sub>2</sub>	1. 54 <sup>1</sup> / <sub>2</sub>	1. 15 <sup>3</sup> / <sub>4</sub>	.....
1876.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 84	1. 55 <sup>1</sup> / <sub>2</sub>	1. 66 <sup>1</sup> / <sub>4</sub>	1. 15 <sup>3</sup> / <sub>4</sub>	.....
1877.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 84	1. 55 <sup>1</sup> / <sub>2</sub>	1. 66 <sup>1</sup> / <sub>4</sub>	1. 44 <sup>3</sup> / <sub>4</sub>	.....
1878.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 65 <sup>3</sup> / <sub>4</sub>	1. 55 <sup>1</sup> / <sub>2</sub>	1. 60 <sup>1</sup> / <sub>4</sub>	1. 44 <sup>3</sup> / <sub>4</sub>	.....
1879.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 65 <sup>3</sup> / <sub>4</sub>	1. 21 <sup>1</sup> / <sub>2</sub>	1. 49	1. 44 <sup>3</sup> / <sub>4</sub>	.....
1880.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 56 <sup>3</sup> / <sub>4</sub>	1. 21 <sup>1</sup> / <sub>2</sub>	1. 46	1. 64	.....
1881.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 56 <sup>3</sup> / <sub>4</sub>	1. 21 <sup>1</sup> / <sub>2</sub>	1. 46	1. 64	.....
1882.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 56 <sup>3</sup> / <sub>4</sub>	1. 21 <sup>1</sup> / <sub>2</sub>	1. 46	1. 64	.....
1883.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 56 <sup>3</sup> / <sub>4</sub>	1. 38 <sup>1</sup> / <sub>2</sub>	1. 51 <sup>1</sup> / <sub>2</sub>	1. 64	.....
1884.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 56 <sup>3</sup> / <sub>4</sub>	1. 38 <sup>1</sup> / <sub>2</sub>	1. 51 <sup>1</sup> / <sub>2</sub>	1. 64	.....
1885.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 56 <sup>3</sup> / <sub>4</sub>	1. 21 <sup>1</sup> / <sub>2</sub>	1. 46	1. 64	.....
1886.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 56 <sup>3</sup> / <sub>4</sub>	1. 21 <sup>1</sup> / <sub>2</sub>	1. 46	1. 64	.....
1887.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 56 <sup>3</sup> / <sub>4</sub>	1. 21 <sup>1</sup> / <sub>2</sub>	1. 46	1. 64	.....
1888.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 56 <sup>3</sup> / <sub>4</sub>	1. 29 <sup>3</sup> / <sub>4</sub>	1. 48 <sup>3</sup> / <sub>4</sub>	1. 64	.....
1889.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 56 <sup>3</sup> / <sub>4</sub>	1. 38 <sup>1</sup> / <sub>2</sub>	1. 51 <sup>1</sup> / <sub>2</sub>	1. 64	.....
1890.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 56 <sup>3</sup> / <sub>4</sub>	1. 46 <sup>3</sup> / <sub>4</sub>	1. 54 <sup>1</sup> / <sub>2</sub>	1. 64	.....
1891.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 65 <sup>3</sup> / <sub>4</sub>	1. 55 <sup>1</sup> / <sub>2</sub>	1. 60 <sup>1</sup> / <sub>4</sub>	1. 64	.....
1892.....	1. 60 <sup>1</sup> / <sub>2</sub>	1. 65 <sup>3</sup> / <sub>4</sub>	1. 55 <sup>1</sup> / <sub>2</sub>	1. 60 <sup>1</sup> / <sub>2</sub>	1. 64	.....
1893.....	1. 60 <sup>1</sup> / <sub>2</sub>	1. 65 <sup>3</sup> / <sub>4</sub>	1. 55 <sup>1</sup> / <sub>2</sub>	1. 60 <sup>1</sup> / <sub>2</sub>	1. 64	.....
1894.....	1. 60 <sup>1</sup> / <sub>2</sub>	1. 74 <sup>3</sup> / <sub>4</sub>	1. 55 <sup>1</sup> / <sub>2</sub>	1. 63 <sup>1</sup> / <sub>2</sub>	1. 64	.....
1895.....	1. 60 <sup>1</sup> / <sub>2</sub>	1. 74 <sup>3</sup> / <sub>4</sub>	1. 55 <sup>1</sup> / <sub>2</sub>	1. 63 <sup>1</sup> / <sub>2</sub>	1. 64	.....
1896.....	1. 68 <sup>3</sup> / <sub>4</sub>	1. 84	1. 55 <sup>1</sup> / <sub>2</sub>	1. 69 <sup>1</sup> / <sub>4</sub>	1. 64	.....

CABINETMAKERS.

1870.....	1. 22 <sup>1</sup> / <sub>2</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 30	1. 28 <sup>1</sup> / <sub>2</sub>	\$0. 67 <sup>1</sup> / <sub>2</sub>
1871.....	1. 22 <sup>1</sup> / <sub>2</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 30	1. 28 <sup>1</sup> / <sub>2</sub>	. 67 <sup>1</sup> / <sub>2</sub>
1872.....	1. 51 <sup>3</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 44 <sup>1</sup> / <sub>2</sub>	1. 28 <sup>1</sup> / <sub>2</sub>	. 67 <sup>1</sup> / <sub>2</sub>
1873.....	1. 51 <sup>3</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 44 <sup>1</sup> / <sub>2</sub>	1. 28 <sup>1</sup> / <sub>2</sub>	. 67 <sup>1</sup> / <sub>2</sub>
1874.....	1. 51 <sup>3</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 44 <sup>1</sup> / <sub>2</sub>	1. 28 <sup>1</sup> / <sub>2</sub>	. 67 <sup>1</sup> / <sub>2</sub>
1875.....	1. 51 <sup>3</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 44 <sup>1</sup> / <sub>2</sub>	1. 28 <sup>1</sup> / <sub>2</sub>	. 67 <sup>1</sup> / <sub>2</sub>
1876.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 50 <sup>3</sup> / <sub>4</sub>	1. 28 <sup>1</sup> / <sub>2</sub>	. 67 <sup>1</sup> / <sub>2</sub>
1877.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 50 <sup>3</sup> / <sub>4</sub>	1. 28 <sup>1</sup> / <sub>2</sub>	. 67 <sup>1</sup> / <sub>2</sub>
1878.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 50 <sup>3</sup> / <sub>4</sub>	1. 44 <sup>3</sup> / <sub>4</sub>	. 67 <sup>1</sup> / <sub>2</sub>
1879.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 50 <sup>3</sup> / <sub>4</sub>	1. 44 <sup>3</sup> / <sub>4</sub>	. 67 <sup>1</sup> / <sub>2</sub>
1880.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 50 <sup>3</sup> / <sub>4</sub>	1. 44 <sup>3</sup> / <sub>4</sub>	. 67 <sup>1</sup> / <sub>2</sub>
1881.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 50 <sup>3</sup> / <sub>4</sub>	1. 44 <sup>3</sup> / <sub>4</sub>	. 67 <sup>1</sup> / <sub>2</sub>
1882.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 50 <sup>3</sup> / <sub>4</sub>	1. 44 <sup>3</sup> / <sub>4</sub>	. 67 <sup>1</sup> / <sub>2</sub>
1883.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 50 <sup>3</sup> / <sub>4</sub>	1. 49	. 67 <sup>1</sup> / <sub>2</sub>
1884.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 50 <sup>3</sup> / <sub>4</sub>	1. 49	. 67 <sup>1</sup> / <sub>2</sub>
1885.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 50 <sup>3</sup> / <sub>4</sub>	1. 49	. 67 <sup>1</sup> / <sub>2</sub>
1886.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 50 <sup>3</sup> / <sub>4</sub>	1. 49	. 67 <sup>1</sup> / <sub>2</sub>
1887.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 50 <sup>3</sup> / <sub>4</sub>	1. 49	. 67 <sup>1</sup> / <sub>2</sub>
1888.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 50 <sup>3</sup> / <sub>4</sub>	1. 49	. 67 <sup>1</sup> / <sub>2</sub>
1889.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 50 <sup>3</sup> / <sub>4</sub>	1. 65 <sup>1</sup> / <sub>2</sub>	. 67 <sup>1</sup> / <sub>2</sub>
1890.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 50 <sup>3</sup> / <sub>4</sub>	1. 65 <sup>1</sup> / <sub>2</sub>	. 67 <sup>1</sup> / <sub>2</sub>
1891.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 50 <sup>3</sup> / <sub>4</sub>	1. 65 <sup>1</sup> / <sub>2</sub>	. 67 <sup>1</sup> / <sub>2</sub>
1892.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 50 <sup>3</sup> / <sub>4</sub>	1. 65 <sup>1</sup> / <sub>2</sub>	. 70 <sup>3</sup> / <sub>4</sub>
1893.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 50 <sup>3</sup> / <sub>4</sub>	1. 65 <sup>1</sup> / <sub>2</sub>	. 70 <sup>3</sup> / <sub>4</sub>
1894.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 50 <sup>3</sup> / <sub>4</sub>	1. 65 <sup>1</sup> / <sub>2</sub>	. 70 <sup>3</sup> / <sub>4</sub>
1895.....	1. 64 <sup>1</sup> / <sub>4</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 50 <sup>3</sup> / <sub>4</sub>	1. 65 <sup>1</sup> / <sub>2</sub>	. 70 <sup>3</sup> / <sub>4</sub>
1896.....	1. 68 <sup>1</sup> / <sub>2</sub>	1. 37 <sup>1</sup> / <sub>4</sub>	.....	1. 53	1. 65 <sup>1</sup> / <sub>2</sub>	. 70 <sup>3</sup> / <sub>4</sub>

TABLE III.—AVERAGE DAILY WAGES IN CERTAIN CITIES OF GREAT BRITAIN, FRANCE, AND BELGIUM, 1870 TO 1896—Continued.

CARPENTERS. (a)

Year.	Great Britain.				Paris, France.	Liege, Belgium.
	London.	Man- chester.	Glasgow.	Average.		
1870.....	\$1. 53	\$1. 34	\$1. 12 <sup>3</sup> / <sub>4</sub>	\$1. 33 <sup>1</sup> / <sub>4</sub>	\$1. 20 <sup>1</sup> / <sub>4</sub>	.....
1871.....	1. 53	1. 34	1. 12 <sup>3</sup> / <sub>4</sub>	1. 33 <sup>1</sup> / <sub>4</sub>	1. 20 <sup>1</sup> / <sub>4</sub>	.....
1872.....	1. 51	1. 34	1. 21 <sup>1</sup> / <sub>4</sub>	1. 35 <sup>1</sup> / <sub>2</sub>	1. 20 <sup>1</sup> / <sub>4</sub>	.....
1873.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 47 <sup>1</sup> / <sub>2</sub>	1. 29 <sup>3</sup> / <sub>4</sub>	1. 45 <sup>3</sup> / <sub>4</sub>	1. 20 <sup>1</sup> / <sub>4</sub>	.....
1874.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 47 <sup>1</sup> / <sub>2</sub>	1. 38 <sup>1</sup> / <sub>2</sub>	1. 48 <sup>1</sup> / <sub>2</sub>	1. 20 <sup>1</sup> / <sub>4</sub>	.....
1875.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 49 <sup>1</sup> / <sub>2</sub>	1. 46 <sup>3</sup> / <sub>4</sub>	1. 52	1. 24 <sup>1</sup> / <sub>2</sub>	.....
1876.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 49 <sup>1</sup> / <sub>2</sub>	1. 55 <sup>1</sup> / <sub>4</sub>	1. 54 <sup>3</sup> / <sub>4</sub>	1. 38	.....
1877.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 49 <sup>1</sup> / <sub>2</sub>	1. 55 <sup>1</sup> / <sub>4</sub>	1. 54 <sup>3</sup> / <sub>4</sub>	1. 37 <sup>3</sup> / <sub>4</sub>	.....
1878.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 47 <sup>1</sup> / <sub>2</sub>	1. 38 <sup>1</sup> / <sub>4</sub>	1. 48 <sup>1</sup> / <sub>2</sub>	1. 37 <sup>3</sup> / <sub>4</sub>	.....
1879.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 47 <sup>1</sup> / <sub>2</sub>	1. 12 <sup>3</sup> / <sub>4</sub>	1. 40	1. 37 <sup>3</sup> / <sub>4</sub>	.....
1880.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 47 <sup>1</sup> / <sub>2</sub>	1. 12 <sup>3</sup> / <sub>4</sub>	1. 40	1. 37 <sup>3</sup> / <sub>4</sub>	.....
1881.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 47 <sup>1</sup> / <sub>2</sub>	1. 21 <sup>1</sup> / <sub>4</sub>	1. 42 <sup>3</sup> / <sub>4</sub>	1. 37 <sup>3</sup> / <sub>4</sub>	.....
1882.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 47 <sup>1</sup> / <sub>2</sub>	1. 21 <sup>1</sup> / <sub>4</sub>	1. 42 <sup>3</sup> / <sub>4</sub>	1. 55 <sup>3</sup> / <sub>4</sub>	.....
1883.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 47 <sup>1</sup> / <sub>2</sub>	1. 29 <sup>3</sup> / <sub>4</sub>	1. 45 <sup>3</sup> / <sub>4</sub>	1. 55 <sup>3</sup> / <sub>4</sub>	\$0. 78 <sup>1</sup> / <sub>4</sub>
1884.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 47 <sup>1</sup> / <sub>2</sub>	1. 29 <sup>3</sup> / <sub>4</sub>	1. 45 <sup>3</sup> / <sub>4</sub>	1. 55 <sup>3</sup> / <sub>4</sub>	. 78
1885.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 47 <sup>1</sup> / <sub>2</sub>	1. 29 <sup>3</sup> / <sub>4</sub>	1. 45 <sup>3</sup> / <sub>4</sub>	1. 55 <sup>3</sup> / <sub>4</sub>	. 78
1886.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 47 <sup>1</sup> / <sub>2</sub>	1. 29 <sup>3</sup> / <sub>4</sub>	1. 45 <sup>3</sup> / <sub>4</sub>	1. 55 <sup>3</sup> / <sub>4</sub>	. 77 <sup>1</sup> / <sub>2</sub>
1887.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 47 <sup>1</sup> / <sub>2</sub>	1. 29 <sup>3</sup> / <sub>4</sub>	1. 45 <sup>3</sup> / <sub>4</sub>	1. 55 <sup>3</sup> / <sub>4</sub>	. 78 <sup>1</sup> / <sub>2</sub>
1888.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 47 <sup>1</sup> / <sub>2</sub>	1. 29 <sup>3</sup> / <sub>4</sub>	1. 45 <sup>3</sup> / <sub>4</sub>	1. 55 <sup>3</sup> / <sub>4</sub>	. 77 <sup>1</sup> / <sub>2</sub>
1889.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 47 <sup>1</sup> / <sub>2</sub>	1. 38 <sup>1</sup> / <sub>4</sub>	1. 48 <sup>1</sup> / <sub>2</sub>	1. 55 <sup>3</sup> / <sub>4</sub>	. 78
1890.....	1. 59 <sup>3</sup> / <sub>4</sub>	1. 49 <sup>1</sup> / <sub>2</sub>	1. 38 <sup>1</sup> / <sub>4</sub>	1. 49 <sup>1</sup> / <sub>2</sub>	1. 55 <sup>3</sup> / <sub>4</sub>	. 78 <sup>3</sup> / <sub>4</sub>
1891.....	1. 56	1. 49 <sup>1</sup> / <sub>2</sub>	1. 46 <sup>3</sup> / <sub>4</sub>	1. 50 <sup>3</sup> / <sub>4</sub>	1. 55 <sup>3</sup> / <sub>4</sub>	. 78 <sup>1</sup> / <sub>4</sub>
1892.....	1. 60 <sup>1</sup> / <sub>2</sub>	1. 49 <sup>1</sup> / <sub>2</sub>	1. 46 <sup>3</sup> / <sub>4</sub>	1. 52 <sup>1</sup> / <sub>4</sub>	1. 55 <sup>3</sup> / <sub>4</sub>	. 78 <sup>3</sup> / <sub>4</sub>
1893.....	1. 60 <sup>1</sup> / <sub>2</sub>	1. 49 <sup>1</sup> / <sub>2</sub>	1. 46 <sup>3</sup> / <sub>4</sub>	1. 52 <sup>1</sup> / <sub>4</sub>	1. 55 <sup>3</sup> / <sub>4</sub>	. 79 <sup>1</sup> / <sub>2</sub>
1894.....	1. 60 <sup>1</sup> / <sub>2</sub>	1. 49 <sup>1</sup> / <sub>2</sub>	1. 46 <sup>3</sup> / <sub>4</sub>	1. 52 <sup>1</sup> / <sub>4</sub>	1. 55 <sup>3</sup> / <sub>4</sub>	. 80 <sup>1</sup> / <sub>4</sub>
1895.....	1. 60 <sup>1</sup> / <sub>2</sub>	1. 50 <sup>1</sup> / <sub>2</sub>	1. 46 <sup>3</sup> / <sub>4</sub>	1. 52 <sup>3</sup> / <sub>4</sub>	1. 55 <sup>3</sup> / <sub>4</sub>	. 79
1896.....	1. 68 <sup>1</sup> / <sub>4</sub>	1. 50 <sup>1</sup> / <sub>2</sub>	1. 55 <sup>1</sup> / <sub>4</sub>	1. 58 <sup>1</sup> / <sub>4</sub>	1. 55 <sup>3</sup> / <sub>4</sub>	. 81

a In Great Britain and Belgium joiners are included in carpenters.

COMPOSITORS.

1870.....	1. 46	1. 21 <sup>3</sup> / <sub>4</sub>	1. 11 <sup>1</sup> / <sub>2</sub>	1. 26 <sup>1</sup> / <sub>2</sub>	1. 15 <sup>3</sup> / <sub>4</sub>	. 64
1871.....	1. 46	1. 21 <sup>3</sup> / <sub>4</sub>	1. 21 <sup>3</sup> / <sub>4</sub>	1. 29 <sup>3</sup> / <sub>4</sub>	1. 15 <sup>3</sup> / <sub>4</sub>	. 65 <sup>1</sup> / <sub>4</sub>
1872.....	1. 46	1. 33 <sup>3</sup> / <sub>4</sub>	1. 21 <sup>3</sup> / <sub>4</sub>	1. 33 <sup>3</sup> / <sub>4</sub>	1. 15 <sup>3</sup> / <sub>4</sub>	. 64 <sup>3</sup> / <sub>4</sub>
1873.....	1. 46	1. 33 <sup>3</sup> / <sub>4</sub>	1. 21 <sup>3</sup> / <sub>4</sub>	1. 33 <sup>3</sup> / <sub>4</sub>	1. 15 <sup>3</sup> / <sub>4</sub>	. 67 <sup>1</sup> / <sub>2</sub>
1874.....	1. 46	1. 42	1. 21 <sup>3</sup> / <sub>4</sub>	1. 36 <sup>1</sup> / <sub>2</sub>	1. 15 <sup>3</sup> / <sub>4</sub>	. 69
1875.....	1. 46	1. 42	1. 21 <sup>3</sup> / <sub>4</sub>	1. 36 <sup>1</sup> / <sub>2</sub>	1. 15 <sup>3</sup> / <sub>4</sub>	. 67 <sup>1</sup> / <sub>2</sub>
1876.....	1. 46	1. 42	1. 21 <sup>3</sup> / <sub>4</sub>	1. 36 <sup>1</sup> / <sub>2</sub>	1. 15 <sup>3</sup> / <sub>4</sub>	. 64 <sup>1</sup> / <sub>2</sub>
1877.....	1. 46	1. 42	1. 31 <sup>1</sup> / <sub>2</sub>	1. 40	1. 15 <sup>3</sup> / <sub>4</sub>	. 66 <sup>1</sup> / <sub>2</sub>
1878.....	1. 46	1. 42	1. 31 <sup>3</sup> / <sub>4</sub>	1. 40	1. 25 <sup>1</sup> / <sub>2</sub>	. 71 <sup>1</sup> / <sub>2</sub>
1879.....	1. 46	1. 42	1. 31 <sup>3</sup> / <sub>4</sub>	1. 40	1. 25 <sup>1</sup> / <sub>2</sub>	. 72
1880.....	1. 46	1. 42	1. 31 <sup>3</sup> / <sub>4</sub>	1. 40	1. 25 <sup>1</sup> / <sub>2</sub>	. 72 <sup>1</sup> / <sub>2</sub>
1881.....	1. 46	1. 42	1. 31 <sup>3</sup> / <sub>4</sub>	1. 40	1. 25 <sup>1</sup> / <sub>2</sub>	. 74 <sup>1</sup> / <sub>2</sub>
1882.....	1. 46	1. 42	1. 31 <sup>3</sup> / <sub>4</sub>	1. 40	1. 25 <sup>1</sup> / <sub>2</sub>	. 73 <sup>3</sup> / <sub>4</sub>
1883.....	1. 46	1. 42	1. 31 <sup>3</sup> / <sub>4</sub>	1. 40	1. 25 <sup>1</sup> / <sub>2</sub>	. 75 <sup>1</sup> / <sub>2</sub>
1884.....	1. 46	1. 42	1. 31 <sup>3</sup> / <sub>4</sub>	1. 40	1. 25 <sup>1</sup> / <sub>2</sub>	. 75 <sup>1</sup> / <sub>2</sub>
1885.....	1. 46	1. 42	1. 31 <sup>3</sup> / <sub>4</sub>	1. 40	1. 25 <sup>1</sup> / <sub>2</sub>	. 82
1886.....	1. 46	1. 42	1. 31 <sup>3</sup> / <sub>4</sub>	1. 40	1. 25 <sup>1</sup> / <sub>2</sub>	. 76 <sup>3</sup> / <sub>4</sub>
1887.....	1. 46	1. 42	1. 31 <sup>3</sup> / <sub>4</sub>	1. 40	1. 25 <sup>1</sup> / <sub>2</sub>	. 77 <sup>1</sup> / <sub>2</sub>
1888.....	1. 46	1. 42	1. 31 <sup>3</sup> / <sub>4</sub>	1. 40	1. 25 <sup>1</sup> / <sub>2</sub>	. 77 <sup>3</sup> / <sub>4</sub>
1889.....	1. 46	1. 42	1. 31 <sup>3</sup> / <sub>4</sub>	1. 40	1. 25 <sup>1</sup> / <sub>2</sub>	. 75 <sup>1</sup> / <sub>4</sub>
1890.....	1. 46	1. 42	1. 31 <sup>3</sup> / <sub>4</sub>	1. 40	1. 25 <sup>1</sup> / <sub>2</sub>	. 78 <sup>3</sup> / <sub>4</sub>
1891.....	1. 54 <sup>1</sup> / <sub>2</sub>	1. 42	1. 38	1. 44 <sup>3</sup> / <sub>4</sub>	1. 25 <sup>1</sup> / <sub>2</sub>	. 75 <sup>1</sup> / <sub>2</sub>
1892.....	1. 54 <sup>1</sup> / <sub>4</sub>	1. 42	1. 38	1. 44 <sup>3</sup> / <sub>4</sub>	1. 25 <sup>1</sup> / <sub>2</sub>	. 77 <sup>1</sup> / <sub>4</sub>
1893.....	1. 54 <sup>1</sup> / <sub>4</sub>	1. 42	1. 38	1. 44 <sup>3</sup> / <sub>4</sub>	1. 25 <sup>1</sup> / <sub>2</sub>	. 76 <sup>1</sup> / <sub>4</sub>
1894.....	1. 54 <sup>1</sup> / <sub>4</sub>	1. 42	1. 38	1. 44 <sup>3</sup> / <sub>4</sub>	1. 25 <sup>1</sup> / <sub>2</sub>	. 79
1895.....	1. 54 <sup>1</sup> / <sub>4</sub>	1. 42	1. 38	1. 44 <sup>3</sup> / <sub>4</sub>	1. 25 <sup>1</sup> / <sub>2</sub>	. 79 <sup>1</sup> / <sub>2</sub>
1896.....	1. 54 <sup>1</sup> / <sub>4</sub>	1. 42	1. 38	1. 44 <sup>3</sup> / <sub>4</sub>	1. 25 <sup>1</sup> / <sub>2</sub>	. 79 <sup>3</sup> / <sub>4</sub>



TABLE II.—AVERAGE DAILY WAGES IN CERTAIN CITIES OF GREAT BRITAIN, FRANCE, AND BELGIUM, 1870 TO 1896—Continued.

## HOD CARRIERS.

Year.	Great Britain.				Paris, France.	Liege, Belgium.
	London.	Man- chester.	Glasgow.	Average.		
1870.....					\$0. 67 $\frac{1}{2}$	
1871.....					. 67 $\frac{1}{2}$	
1872.....					. 77 $\frac{1}{4}$	
1873.....					. 77 $\frac{1}{4}$	
1874.....					. 77 $\frac{1}{4}$	
1875.....					. 77 $\frac{1}{4}$	
1876.....					. 77 $\frac{1}{4}$	
1877.....					. 86 $\frac{1}{4}$	
1878.....					. 86 $\frac{1}{4}$	
1879.....					. 86 $\frac{1}{4}$	
1880.....					. 86 $\frac{1}{4}$	
1881.....					1. 06 $\frac{1}{4}$	
1882.....					1. 06 $\frac{1}{4}$	
1883.....					1. 06 $\frac{1}{4}$	
1884.....					1. 06 $\frac{1}{4}$	
1885.....					1. 06 $\frac{1}{4}$	
1886.....					1. 06 $\frac{1}{4}$	
1887.....					1. 06 $\frac{1}{4}$	\$0. 44 $\frac{1}{4}$
1888.....					1. 06 $\frac{1}{4}$	. 46
1889.....					1. 06 $\frac{1}{4}$	. 46 $\frac{1}{4}$
1890.....					1. 06 $\frac{1}{4}$	. 48 $\frac{1}{4}$
1891.....					1. 06 $\frac{1}{4}$	. 48 $\frac{1}{4}$
1892.....					1. 06 $\frac{1}{4}$	. 49 $\frac{1}{4}$
1893.....					1. 06 $\frac{1}{4}$	. 49 $\frac{1}{4}$
1894.....					1. 06 $\frac{1}{4}$	. 42 $\frac{1}{4}$
1895.....					1. 06 $\frac{1}{4}$	. 51
1896.....					1. 06 $\frac{1}{4}$	. 47 $\frac{1}{2}$

## IRON MOLDERS.

1870.....	\$1. 46	\$1. 46		\$1. 46	1. 23	. 72 $\frac{1}{2}$
1871.....	1. 46	1. 46		1. 46	1. 28 $\frac{1}{4}$	. 73
1872.....	1. 46	1. 46		1. 46	1. 28	. 74 $\frac{1}{4}$
1873.....	1. 46	1. 54 $\frac{1}{4}$		1. 50 $\frac{1}{4}$	1. 26 $\frac{1}{4}$	. 72 $\frac{1}{2}$
1874.....	1. 46	1. 54 $\frac{1}{4}$		1. 50 $\frac{1}{4}$	1. 25 $\frac{3}{4}$	. 73 $\frac{1}{4}$
1875.....	1. 54 $\frac{1}{4}$	1. 54 $\frac{1}{4}$		1. 54 $\frac{1}{4}$	1. 26	. 84
1876.....	1. 54 $\frac{1}{4}$	1. 54 $\frac{1}{4}$		1. 54 $\frac{1}{4}$	1. 26 $\frac{1}{4}$	. 81 $\frac{1}{4}$
1877.....	1. 54 $\frac{1}{4}$	1. 54 $\frac{1}{4}$		1. 54 $\frac{1}{4}$	1. 26 $\frac{1}{4}$	. 79
1878.....	1. 54 $\frac{1}{4}$	1. 46		1. 50 $\frac{1}{4}$	1. 25 $\frac{3}{4}$	. 70 $\frac{1}{4}$
1879.....	1. 54 $\frac{1}{4}$	1. 46		1. 50 $\frac{1}{4}$	1. 26 $\frac{1}{4}$	. 71 $\frac{3}{4}$
1880.....	1. 54 $\frac{1}{4}$	1. 46		1. 50 $\frac{1}{4}$	1. 28 $\frac{3}{4}$	. 76
1881.....	1. 54 $\frac{1}{4}$	1. 46		1. 50 $\frac{1}{4}$	1. 28 $\frac{3}{4}$	. 78
1882.....	1. 54 $\frac{1}{4}$	1. 54 $\frac{1}{4}$		1. 54 $\frac{1}{4}$	1. 28 $\frac{3}{4}$	. 82
1883.....	1. 54 $\frac{1}{4}$	1. 54 $\frac{1}{4}$		1. 54 $\frac{1}{4}$	1. 28 $\frac{3}{4}$	. 80 $\frac{1}{4}$
1884.....	1. 54 $\frac{1}{4}$	1. 54 $\frac{1}{4}$		1. 54 $\frac{1}{4}$	1. 30 $\frac{1}{4}$	. 77 $\frac{1}{2}$
1885.....	1. 54 $\frac{1}{4}$	1. 54 $\frac{1}{4}$		1. 54 $\frac{1}{4}$	1. 31	. 71 $\frac{1}{4}$
1886.....	1. 54 $\frac{1}{4}$	1. 54 $\frac{1}{4}$		1. 54 $\frac{1}{4}$	1. 30 $\frac{1}{4}$	. 72 $\frac{1}{4}$
1887.....	1. 54 $\frac{1}{4}$	1. 54 $\frac{1}{4}$		1. 54 $\frac{1}{4}$	1. 30	. 65 $\frac{1}{4}$
1888.....	1. 54 $\frac{1}{4}$	1. 54 $\frac{1}{4}$		1. 54 $\frac{1}{4}$	1. 29 $\frac{3}{4}$	. 69
1889.....	1. 54 $\frac{1}{4}$	1. 54 $\frac{1}{4}$		1. 54 $\frac{1}{4}$	1. 28 $\frac{3}{4}$	. 71 $\frac{3}{4}$
1890.....	1. 54 $\frac{1}{4}$	1. 54 $\frac{1}{4}$		1. 54 $\frac{1}{4}$	1. 30 $\frac{3}{4}$	. 70
1891.....	1. 54 $\frac{1}{4}$	1. 54 $\frac{1}{4}$		1. 54 $\frac{1}{4}$	1. 33	. 72
1892.....	1. 54 $\frac{1}{4}$	1. 54 $\frac{1}{4}$		1. 54 $\frac{1}{4}$	1. 31 $\frac{1}{4}$	. 71
1893.....	1. 54 $\frac{1}{4}$	1. 54 $\frac{1}{4}$		1. 54 $\frac{1}{4}$	1. 38 $\frac{1}{4}$	. 70 $\frac{1}{2}$
1894.....	1. 54 $\frac{1}{4}$	1. 54 $\frac{1}{4}$		1. 54 $\frac{1}{4}$	1. 34 $\frac{3}{4}$	. 73 $\frac{1}{4}$
1895.....	1. 54 $\frac{1}{4}$	1. 54 $\frac{1}{4}$		1. 54 $\frac{1}{4}$	1. 37 $\frac{1}{4}$	. 75 $\frac{3}{4}$
1896.....	1. 62 $\frac{1}{4}$	1. 58 $\frac{1}{4}$		1. 60 $\frac{1}{4}$	1. 39 $\frac{1}{4}$	. 79 $\frac{3}{4}$

TABLE II.—AVERAGE DAILY WAGES IN CERTAIN CITIES OF GREAT BRITAIN, FRANCE, AND BELGIUM, 1870 TO 1896—Continued.

IRON MOLDERS' HELPERS.

Year.	Great Britain.				Paris, France.	Liege, Belgium.
	London.	Man- chester.	Glasgow.	Average.		
1870.....					\$0. 81 <sup>3</sup> / <sub>4</sub>	\$0. 49 <sup>3</sup> / <sub>4</sub>
1871.....					. 83 <sup>1</sup> / <sub>4</sub>	. 46 <sup>1</sup> / <sub>2</sub>
1872.....					. 82 <sup>1</sup> / <sub>2</sub>	. 49 <sup>3</sup> / <sub>4</sub>
1873.....					. 84 <sup>1</sup> / <sub>4</sub>	. 56
1874.....					. 86 <sup>1</sup> / <sub>2</sub>	. 55 <sup>3</sup> / <sub>4</sub>
1875.....					. 85 <sup>1</sup> / <sub>4</sub>	. 54 <sup>3</sup> / <sub>4</sub>
1876.....					. 86	. 53 <sup>1</sup> / <sub>4</sub>
1877.....					. 86 <sup>3</sup> / <sub>4</sub>	. 53 <sup>1</sup> / <sub>4</sub>
1878.....					. 87	. 52 <sup>3</sup> / <sub>4</sub>
1879.....					. 87 <sup>3</sup> / <sub>4</sub>	. 53
1880.....					. 87 <sup>1</sup> / <sub>2</sub>	. 50 <sup>3</sup> / <sub>4</sub>
1881.....					. 88 <sup>1</sup> / <sub>4</sub>	. 53
1882.....					. 88	. 54 <sup>1</sup> / <sub>4</sub>
1883.....					. 88 <sup>3</sup> / <sub>4</sub>	. 52 <sup>3</sup> / <sub>4</sub>
1884.....					. 89 <sup>1</sup> / <sub>4</sub>	. 53 <sup>1</sup> / <sub>4</sub>
1885.....					. 90 <sup>1</sup> / <sub>4</sub>	. 50 <sup>3</sup> / <sub>4</sub>
1886.....					. 88 <sup>1</sup> / <sub>2</sub>	. 50 <sup>1</sup> / <sub>4</sub>
1887.....					. 89 <sup>3</sup> / <sub>4</sub>	. 51 <sup>1</sup> / <sub>4</sub>
1888.....					. 92 <sup>1</sup> / <sub>2</sub>	. 51 <sup>1</sup> / <sub>4</sub>
1889.....					. 92 <sup>1</sup> / <sub>4</sub>	. 52 <sup>3</sup> / <sub>4</sub>
1890.....					. 92	. 52 <sup>3</sup> / <sub>4</sub>
1891.....					. 93 <sup>1</sup> / <sub>4</sub>	. 52 <sup>3</sup> / <sub>4</sub>
1892.....					. 89 <sup>1</sup> / <sub>2</sub>	. 50 <sup>1</sup> / <sub>2</sub>
1893.....					. 93 <sup>3</sup> / <sub>4</sub>	. 50 <sup>1</sup> / <sub>4</sub>
1894.....					. 92 <sup>1</sup> / <sub>4</sub>	. 50 <sup>1</sup> / <sub>4</sub>
1895.....					. 92 <sup>1</sup> / <sub>2</sub>	. 51 <sup>1</sup> / <sub>2</sub>
1896.....					. 93 <sup>3</sup> / <sub>4</sub>	. 51

JOINERS. (a)

1870.....					1. 06 <sup>1</sup> / <sub>4</sub>	.....
1871.....					1. 06 <sup>1</sup> / <sub>4</sub>	.....
1872.....					1. 06 <sup>1</sup> / <sub>4</sub>	.....
1873.....					1. 06 <sup>1</sup> / <sub>4</sub>	.....
1874.....					1. 06 <sup>1</sup> / <sub>4</sub>	.....
1875.....					1. 15 <sup>3</sup> / <sub>4</sub>	.....
1876.....					1. 15 <sup>3</sup> / <sub>4</sub>	.....
1877.....					1. 15 <sup>3</sup> / <sub>4</sub>	.....
1878.....					1. 15 <sup>3</sup> / <sub>4</sub>	.....
1879.....					1. 15 <sup>3</sup> / <sub>4</sub>	.....
1880.....					1. 27	.....
1881.....					1. 27	.....
1882.....					1. 35	.....
1883.....					1. 35	.....
1884.....					1. 35	.....
1885.....					1. 35	.....
1886.....					1. 35	.....
1887.....					1. 35	.....
1888.....					1. 35	.....
1889.....					1. 35	.....
1890.....					1. 35	.....
1891.....					1. 35	.....
1892.....					1. 35	.....
1893.....					1. 35	.....
1894.....					1. 35	.....
1895.....					1. 35	.....
1896.....					1. 35	.....

a See Carpenters.



TABLE II.—AVERAGE DAILY WAGES IN CERTAIN CITIES OF GREAT BRITAIN, FRANCE, AND BELGIUM, 1870 TO 1896—Continued.

## LABORERS, OTHER.

[An effort was made to obtain figures for the two classes—laborers, street, and laborers, other. Figures could be obtained for the second class only.]

Year.	Great Britain.				Paris, France.	Liege, Belgium.
	London.	Man- chester.	Glasgow.	Average.		
1870.....					\$0. 86 $\frac{3}{4}$	\$0. 53 $\frac{1}{4}$
1871.....					.86 $\frac{3}{4}$	.53 $\frac{1}{4}$
1872.....					.86 $\frac{3}{4}$	.54 $\frac{1}{2}$
1873.....					.86 $\frac{3}{4}$	.54 $\frac{1}{2}$
1874.....					.86 $\frac{3}{4}$	.55 $\frac{1}{2}$
1875.....					.86 $\frac{3}{4}$	.54 $\frac{1}{2}$
1876.....					.86 $\frac{3}{4}$	.54 $\frac{1}{2}$
1877.....					.86 $\frac{3}{4}$	.54 $\frac{1}{2}$
1878.....					.86 $\frac{3}{4}$	.53 $\frac{1}{2}$
1879.....					.86 $\frac{3}{4}$	.54 $\frac{1}{2}$
1880.....					.86 $\frac{3}{4}$	.54
1881.....					.86 $\frac{3}{4}$	.54
1882.....					.86 $\frac{3}{4}$	.53 $\frac{3}{4}$
1883.....					.86 $\frac{3}{4}$	.53 $\frac{3}{4}$
1884.....					.86 $\frac{3}{4}$	.53 $\frac{3}{4}$
1885.....					.86 $\frac{3}{4}$	.53 $\frac{3}{4}$
1886.....					.86 $\frac{3}{4}$	.53 $\frac{3}{4}$
1887.....					.86 $\frac{3}{4}$	.53 $\frac{3}{4}$
1888.....					.86 $\frac{3}{4}$	.53 $\frac{3}{4}$
1889.....					.96 $\frac{1}{2}$	.53
1890.....					.96 $\frac{1}{2}$	.52 $\frac{1}{2}$
1891.....					.96 $\frac{1}{2}$	.52 $\frac{1}{2}$
1892.....					.96 $\frac{1}{2}$	.52 $\frac{1}{2}$
1893.....					.96 $\frac{1}{2}$	.52 $\frac{1}{2}$
1894.....					.96 $\frac{1}{2}$	.52 $\frac{1}{2}$
1895.....					.96 $\frac{1}{2}$	.52 $\frac{1}{2}$
1896.....					.96 $\frac{1}{2}$	.52 $\frac{1}{2}$

## MACHINISTS.

1870.....	\$1. 46	\$1. 21 $\frac{3}{4}$		\$1. 34	1. 33 $\frac{1}{4}$	. 65 $\frac{3}{4}$
1871.....	1. 46	1. 21 $\frac{3}{4}$		1. 34	1. 34 $\frac{1}{2}$	. 56 $\frac{1}{2}$
1872.....	1. 46	1. 29 $\frac{3}{4}$		1. 38	1. 31 $\frac{1}{2}$	. 57 $\frac{1}{2}$
1873.....	1. 46	1. 29 $\frac{3}{4}$		1. 38	1. 31 $\frac{1}{2}$	. 63 $\frac{1}{2}$
1874.....	1. 46	1. 29 $\frac{3}{4}$		1. 38	1. 32	. 63 $\frac{1}{2}$
1875.....	1. 46	1. 29 $\frac{3}{4}$		1. 38	1. 32	(a) . 56 $\frac{1}{2}$
1876.....	1. 54 $\frac{1}{4}$	1. 29 $\frac{3}{4}$		1. 42	1. 32 $\frac{1}{4}$	. 63 $\frac{1}{2}$
1877.....	1. 54 $\frac{1}{4}$	1. 29 $\frac{3}{4}$		1. 42	1. 31 $\frac{3}{4}$	. 59 $\frac{1}{2}$
1878.....	1. 54 $\frac{1}{4}$	1. 29 $\frac{3}{4}$		1. 42	1. 32 $\frac{3}{4}$	. 61 $\frac{1}{4}$
1879.....	1. 54 $\frac{1}{4}$	1. 29 $\frac{3}{4}$		1. 42	1. 33 $\frac{1}{2}$	. 62 $\frac{3}{4}$
1880.....	1. 54 $\frac{1}{4}$	1. 29 $\frac{3}{4}$		1. 42	1. 34 $\frac{3}{4}$	. 63 $\frac{1}{2}$
1881.....	1. 54 $\frac{1}{4}$	1. 29 $\frac{3}{4}$		1. 42	1. 34 $\frac{3}{4}$	. 65 $\frac{1}{2}$
1882.....	1. 54 $\frac{1}{4}$	1. 38		1. 46 $\frac{1}{4}$	1. 34 $\frac{3}{4}$	. 65 $\frac{1}{2}$
1883.....	1. 54 $\frac{1}{4}$	1. 38		1. 46 $\frac{1}{4}$	1. 34 $\frac{3}{4}$	. 62 $\frac{3}{4}$
1884.....	1. 54 $\frac{1}{4}$	1. 38		1. 46 $\frac{1}{4}$	1. 35	. 64
1885.....	1. 54 $\frac{1}{4}$	1. 38		1. 42	1. 34 $\frac{1}{4}$	. 63 $\frac{3}{4}$
1886.....	1. 54 $\frac{1}{4}$	1. 29 $\frac{3}{4}$		1. 42	1. 34	. 60 $\frac{1}{4}$
1887.....	1. 54 $\frac{1}{4}$	1. 29 $\frac{3}{4}$		1. 42	1. 34 $\frac{1}{2}$	. 65
1888.....	1. 54 $\frac{1}{4}$	1. 38		1. 46 $\frac{1}{4}$	1. 34 $\frac{1}{4}$	. 61 $\frac{1}{4}$
1889.....	1. 54 $\frac{1}{4}$	1. 38		1. 46 $\frac{1}{4}$	1. 35 $\frac{3}{4}$	. 66 $\frac{3}{4}$
1890.....	1. 54 $\frac{1}{4}$	1. 42		1. 48 $\frac{1}{4}$	1. 35 $\frac{1}{2}$	. 64
1891.....	1. 54 $\frac{1}{4}$	1. 42		1. 48 $\frac{1}{4}$	1. 40 $\frac{1}{2}$	. 64
1892.....	1. 54 $\frac{1}{4}$	1. 38		1. 46 $\frac{1}{4}$	1. 42	. 68 $\frac{1}{4}$
1893.....	1. 54 $\frac{1}{4}$	1. 38		1. 46 $\frac{1}{4}$	1. 38	. 69 $\frac{1}{4}$
1894.....	1. 54 $\frac{1}{4}$	1. 38		1. 46 $\frac{1}{4}$	1. 38	. 72 $\frac{3}{4}$
1895.....	1. 54 $\frac{1}{4}$	1. 46		1. 50 $\frac{1}{4}$	1. 38	. 68 $\frac{1}{4}$
1896.....	1. 54 $\frac{1}{4}$					

a The workmen were paid by the piece; it was impossible to ascertain the daily earnings.

TABLE II.—AVERAGE DAILY WAGES IN CERTAIN CITIES OF GREAT BRITAIN, FRANCE, AND BELGIUM, 1870 TO 1896—Continued.

MACHINISTS' HELPERS.

Year.	Great Britain.				Paris, France.	Liege, Belgium.
	London.	Man- chester.	Glasgow.	Average.		
1870.....					\$0. 78	\$0. 48 $\frac{1}{4}$
1871.....					. 78	. 48 $\frac{3}{4}$
1872.....					. 78	. 48 $\frac{3}{4}$
1873.....					. 78	. 54 $\frac{1}{2}$
1874.....					. 78 $\frac{1}{4}$	. 57
1875.....					. 78 $\frac{1}{4}$	. 51 $\frac{1}{2}$
1876.....					. 78 $\frac{1}{4}$	. 53
1877.....					. 78 $\frac{3}{4}$	. 53
1878.....					. 79 $\frac{1}{2}$	. 48 $\frac{1}{4}$
1879.....					. 79 $\frac{1}{2}$	. 48 $\frac{1}{2}$
1880.....					. 88 $\frac{1}{2}$	. 50 $\frac{1}{4}$
1881.....					. 88 $\frac{1}{2}$	. 53 $\frac{1}{4}$
1882.....					. 88 $\frac{1}{2}$	. 53
1883.....					. 88 $\frac{1}{4}$	. 53
1884.....					. 88 $\frac{1}{4}$	. 51
1885.....					. 88 $\frac{1}{4}$	. 48 $\frac{1}{2}$
1886.....					. 88 $\frac{1}{2}$	. 50
1887.....					. 88 $\frac{1}{2}$	. 49 $\frac{1}{4}$
1888.....					. 88 $\frac{1}{2}$	. 49 $\frac{1}{4}$
1889.....					. 90 $\frac{3}{4}$	. 49
1890.....					. 99	. 47 $\frac{3}{4}$
1891.....					. 99	. 52
1892.....					. 98 $\frac{1}{4}$	. 49 $\frac{1}{2}$
1893.....					. 97	. 50 $\frac{3}{4}$
1894.....					. 97 $\frac{1}{2}$	. 50
1895.....					. 98 $\frac{1}{4}$	. 51 $\frac{1}{4}$
1896.....					. 98 $\frac{1}{4}$	. 51 $\frac{1}{2}$

MASONS, STONE.

1870.....	\$1. 53			\$1. 53	1. 01 $\frac{1}{4}$	
1871.....	1. 53			1. 53	1. 01 $\frac{1}{4}$	
1872.....	1. 51			1. 51	1. 01 $\frac{1}{4}$	
1873.....	1. 59 $\frac{3}{4}$			1. 59 $\frac{3}{4}$	1. 06 $\frac{1}{4}$	
1874.....	1. 59 $\frac{3}{4}$			1. 59 $\frac{3}{4}$	1. 06 $\frac{1}{4}$	. 70 $\frac{3}{4}$
1875.....	1. 59 $\frac{3}{4}$			1. 59 $\frac{3}{4}$	1. 06 $\frac{1}{4}$	. 62 $\frac{3}{4}$
1876.....	1. 59 $\frac{3}{4}$			1. 59 $\frac{3}{4}$	1. 06 $\frac{1}{4}$	. 62 $\frac{1}{4}$
1877.....	1. 59 $\frac{3}{4}$			1. 59 $\frac{3}{4}$	1. 25 $\frac{1}{2}$	. 61 $\frac{1}{4}$
1878.....	1. 59 $\frac{3}{4}$			1. 59 $\frac{3}{4}$	1. 25 $\frac{1}{2}$	. 59 $\frac{1}{4}$
1879.....	1. 59 $\frac{3}{4}$			1. 59 $\frac{3}{4}$	1. 25 $\frac{1}{2}$	. 59 $\frac{1}{4}$
1880.....	1. 59 $\frac{3}{4}$			1. 59 $\frac{3}{4}$	1. 44 $\frac{3}{4}$	. 71
1881.....	1. 59 $\frac{3}{4}$			1. 59 $\frac{3}{4}$	1. 44 $\frac{3}{4}$	. 71 $\frac{1}{4}$
1882.....	1. 59 $\frac{3}{4}$			1. 59 $\frac{3}{4}$	1. 54 $\frac{1}{2}$	. 73 $\frac{1}{2}$
1883.....	1. 59 $\frac{3}{4}$			1. 59 $\frac{3}{4}$	1. 54 $\frac{1}{2}$	. 72 $\frac{3}{4}$
1884.....	1. 58 $\frac{1}{4}$			1. 58 $\frac{1}{4}$	1. 54 $\frac{1}{2}$	. 71 $\frac{1}{4}$
1885.....	1. 58 $\frac{1}{4}$			1. 58 $\frac{1}{4}$	1. 54 $\frac{1}{2}$	. 72 $\frac{3}{4}$
1886.....	1. 58 $\frac{1}{4}$			1. 58 $\frac{1}{4}$	1. 54 $\frac{1}{2}$	. 72 $\frac{1}{4}$
1887.....	1. 58 $\frac{1}{4}$			1. 58 $\frac{1}{4}$	1. 54 $\frac{1}{2}$	. 73 $\frac{1}{4}$
1888.....	1. 58 $\frac{1}{4}$			1. 58 $\frac{1}{4}$	1. 54 $\frac{1}{2}$	. 72 $\frac{3}{4}$
1889.....	1. 58 $\frac{1}{4}$			1. 58 $\frac{1}{4}$	1. 54 $\frac{1}{2}$	. 73 $\frac{3}{4}$
1890.....	1. 59 $\frac{3}{4}$			1. 59 $\frac{3}{4}$	1. 54 $\frac{1}{2}$	. 73 $\frac{1}{2}$
1891.....	1. 59 $\frac{3}{4}$			1. 59 $\frac{3}{4}$	1. 54 $\frac{1}{2}$	. 72 $\frac{3}{4}$
1892.....	1. 52			1. 52	1. 54 $\frac{1}{2}$	. 72
1893.....	1. 60 $\frac{1}{2}$			1. 60 $\frac{1}{2}$	1. 54 $\frac{1}{2}$	. 73 $\frac{1}{4}$
1894.....	1. 60 $\frac{1}{2}$			1. 60 $\frac{1}{2}$	1. 54 $\frac{1}{2}$	. 73
1895.....	1. 60 $\frac{1}{2}$			1. 60 $\frac{1}{2}$	1. 54 $\frac{1}{2}$	. 73
1896.....	1. 68 $\frac{3}{4}$			1. 68 $\frac{3}{4}$	1. 54 $\frac{1}{2}$	. 71



TABLE II.—AVERAGE DAILY WAGES IN CERTAIN CITIES OF GREAT BRITAIN, FRANCE, AND BELGIUM, 1870 TO 1896—Continued.

PAINTERS, HOUSE.

Year.	Great Britain.				Paris, France.	Liege, Belgium.
	London.	Man- chester.	Glasgow.	Average.		
1870.....	\$1.43½	\$1.29½	\$1.19	\$1.30¾	\$1.06¼	\$0.55
1871.....	1.43½	1.29½	1.19	1.30¾	1.06¼	.56
1872.....	1.51	1.29½	1.23¾	1.34¾	1.06¼	.56¾
1873.....	1.51	1.29½	1.28½	1.36	1.15¾	.56
1874.....	1.51	1.29½	1.33	1.37¾	1.15¾	.56¼
1875.....	1.51	1.29½	1.42½	1.41	1.15¾	.56¼
1876.....	1.51	1.29½	1.42½	1.41	1.15¾	.56¾
1877.....	1.51	1.29½	1.51¾	1.44	1.25½	.57¼
1878.....	1.51	1.29½	1.51¾	1.44	1.25½	.58½
1879.....	1.51	1.29½	1.33	1.37¾	1.25½	.55¼
1880.....	1.51	1.29½	1.23¾	1.34¾	1.25½	.62
1881.....	1.51	1.29½	1.33	1.37¾	1.25½	.63
1882.....	1.51	1.29½	1.33	1.37¾	1.35	.62½
1883.....	1.51	1.29½	1.33	1.37¾	1.35	.62½
1884.....	1.51	1.29½	1.33	1.37¾	1.35	.64¾
1885.....	1.51	1.29½	1.33	1.37¾	1.35	.65¾
1886.....	1.51	1.29½	1.33	1.37¾	1.35	.66
1887.....	1.51	1.29½	1.33	1.37¾	1.35	.64½
1888.....	1.51	1.29½	1.33	1.37¾	1.35	.66
1889.....	1.51	1.29½	1.33	1.37¾	1.35	.65¾
1890.....	1.51	1.29½	1.33	1.37¾	1.35	.66¼
1891.....	1.51	1.43	1.29¾	1.41¼	1.35	.66¼
1892.....	1.48	1.36½	1.29¾	1.38	1.35	.66¼
1893.....	1.48	1.36½	1.38¼	1.41	1.35	.66½
1894.....	1.48	1.36½	1.38¼	1.41	1.35	.66½
1895.....	1.48	1.36½	1.38¼	1.41	1.35	.66½
1896.....	1.48	1.40½	1.38¼	1.42¼	1.35	.64

PATTERN MAKERS, IRON WORKS.

1870.....	1.46	.....	1.46	1.21¾	.66¾
1871.....	1.46	.....	1.46	1.22	.62¾
1872.....	1.46	.....	1.46	1.19¾	.67¾
1873.....	1.46	.....	1.46	1.22¼	.73¾
1874.....	1.46	.....	1.46	1.22¼	.81¾
1875.....	1.46	.....	1.46	1.32½	.73
1876.....	1.46	.....	1.46	1.32¼	.77¼
1877.....	1.46	.....	1.46	1.33	.73¼
1878.....	1.46	.....	1.46	1.32½	.70
1879.....	1.46	.....	1.46	1.32	.74
1880.....	1.46	.....	1.46	1.32¾	.70½
1881.....	1.46	.....	1.46	1.32½	.64¾
1882.....	1.46	.....	1.46	1.33¼	.78¾
1883.....	1.46	.....	1.46	1.32¼	.82
1884.....	1.46	.....	1.46	1.32	.82
1885.....	1.53½	.....	1.53½	1.32	.74¼
1886.....	1.46	.....	1.46	1.31½	.73¾
1887.....	1.48	.....	1.48	1.32	.72½
1888.....	1.52	.....	1.52	1.32¼	.76½
1889.....	1.54¼	.....	1.54¼	1.31¾	.72¼
1890.....	1.54¼	.....	1.54¼	1.31¼	.77¼
1891.....	1.54¼	.....	1.54¼	1.31	.85
1892.....	1.54¼	.....	1.54¼	1.31½	.73¼
1893.....	1.54¼	.....	1.54¼	1.33	.75
1894.....	1.54¼	.....	1.54¼	1.33	.78¾
1895.....	1.54¼	.....	1.54¼	1.33¼	.76
1896.....	1.58¼	.....	1.58¼	1.33¼	.77¼

TABLE III.—AVERAGE DAILY WAGES IN CERTAIN CITIES OF GREAT BRITAIN, FRANCE, AND BELGIUM, 1870 TO 1896—Continued.

PLUMBERS.

Year.	Great Britain.				Paris, France.	Liege, Belgium.
	London.	Man- chester.	Glasgow.	Average.		
1870.....	\$1. 43	.....	.....	\$1. 43	\$1. 34 <sup>3</sup> / <sub>4</sub>	.....
1871.....	1. 43	.....	.....	1. 43	1. 34 <sup>3</sup> / <sub>4</sub>	.....
1872.....	1. 43	.....	.....	1. 43	1. 34 <sup>3</sup> / <sub>4</sub>	.....
1873.....	1. 43	.....	.....	1. 43	1. 34 <sup>3</sup> / <sub>4</sub>	.....
1874.....	1. 43	.....	.....	1. 43	1. 34 <sup>3</sup> / <sub>4</sub>	.....
1875.....	1. 43	.....	.....	1. 43	1. 34 <sup>3</sup> / <sub>4</sub>	.....
1876.....	1. 43	.....	.....	1. 43	1. 40 <sup>1</sup> / <sub>2</sub>	.....
1877.....	1. 43	.....	.....	1. 43	1. 40 <sup>3</sup> / <sub>4</sub>	.....
1878.....	1. 58 <sup>3</sup> / <sub>4</sub>	.....	.....	1. 58 <sup>3</sup> / <sub>4</sub>	1. 40 <sup>1</sup> / <sub>2</sub>	.....
1879.....	1. 58 <sup>3</sup> / <sub>4</sub>	.....	.....	1. 58 <sup>3</sup> / <sub>4</sub>	1. 39 <sup>1</sup> / <sub>4</sub>	.....
1880.....	1. 58 <sup>3</sup> / <sub>4</sub>	.....	.....	1. 58 <sup>3</sup> / <sub>4</sub>	1. 39	\$0. 72
1881.....	1. 58 <sup>3</sup> / <sub>4</sub>	.....	.....	1. 58 <sup>3</sup> / <sub>4</sub>	1. 39 <sup>1</sup> / <sub>4</sub>	. 74 <sup>1</sup> / <sub>2</sub>
1882.....	1. 58 <sup>3</sup> / <sub>4</sub>	.....	.....	1. 58 <sup>3</sup> / <sub>4</sub>	1. 39 <sup>1</sup> / <sub>4</sub>	. 78 <sup>1</sup> / <sub>2</sub>
1883.....	1. 58 <sup>3</sup> / <sub>4</sub>	.....	.....	1. 58 <sup>3</sup> / <sub>4</sub>	1. 39 <sup>1</sup> / <sub>2</sub>	. 75 <sup>1</sup> / <sub>2</sub>
1884.....	1. 58 <sup>3</sup> / <sub>4</sub>	.....	.....	1. 58 <sup>3</sup> / <sub>4</sub>	1. 39 <sup>3</sup> / <sub>4</sub>	. 79 <sup>1</sup> / <sub>2</sub>
1885.....	1. 58 <sup>3</sup> / <sub>4</sub>	.....	.....	1. 58 <sup>3</sup> / <sub>4</sub>	1. 39 <sup>1</sup> / <sub>2</sub>	. 76
1886.....	1. 58 <sup>3</sup> / <sub>4</sub>	.....	.....	1. 58 <sup>3</sup> / <sub>4</sub>	1. 39 <sup>3</sup> / <sub>4</sub>	. 72 <sup>1</sup> / <sub>2</sub>
1887.....	1. 58 <sup>3</sup> / <sub>4</sub>	.....	.....	1. 58 <sup>3</sup> / <sub>4</sub>	1. 40 <sup>1</sup> / <sub>2</sub>	. 72 <sup>1</sup> / <sub>2</sub>
1888.....	1. 58 <sup>3</sup> / <sub>4</sub>	.....	.....	1. 58 <sup>3</sup> / <sub>4</sub>	1. 19	. 71 <sup>1</sup> / <sub>2</sub>
1889.....	1. 58 <sup>3</sup> / <sub>4</sub>	.....	.....	1. 58 <sup>3</sup> / <sub>4</sub>	1. 19 <sup>1</sup> / <sub>4</sub>	. 72 <sup>1</sup> / <sub>2</sub>
1890.....	1. 58 <sup>3</sup> / <sub>4</sub>	.....	.....	1. 58 <sup>3</sup> / <sub>4</sub>	1. 39 <sup>1</sup> / <sub>4</sub>	. 79 <sup>1</sup> / <sub>4</sub>
1891.....	1. 58 <sup>3</sup> / <sub>4</sub>	.....	.....	1. 58 <sup>3</sup> / <sub>4</sub>	1. 39 <sup>1</sup> / <sub>2</sub>	. 78
1892.....	1. 66 <sup>1</sup> / <sub>2</sub>	.....	.....	1. 66 <sup>1</sup> / <sub>2</sub>	1. 39 <sup>3</sup> / <sub>4</sub>	. 78 <sup>1</sup> / <sub>2</sub>
1893.....	1. 66 <sup>1</sup> / <sub>2</sub>	.....	.....	1. 66 <sup>1</sup> / <sub>2</sub>	1. 39 <sup>3</sup> / <sub>4</sub>	. 72 <sup>1</sup> / <sub>2</sub>
1894.....	1. 66 <sup>1</sup> / <sub>2</sub>	.....	.....	1. 66 <sup>1</sup> / <sub>2</sub>	1. 39 <sup>1</sup> / <sub>2</sub>	. 73 <sup>3</sup> / <sub>4</sub>
1895.....	1. 66 <sup>1</sup> / <sub>2</sub>	.....	.....	1. 66 <sup>1</sup> / <sub>2</sub>	1. 39 <sup>1</sup> / <sub>2</sub>	. 73 <sup>3</sup> / <sub>4</sub>
1896.....	1. 74 <sup>1</sup> / <sub>2</sub>	.....	.....	1. 74 <sup>1</sup> / <sub>2</sub>	1. 42	. 77 <sup>1</sup> / <sub>2</sub>

STONECUTTERS.

1870.....	.....	.....	.....	.....	. 87 <sup>3</sup> / <sub>4</sub>	(a)
1871.....	.....	.....	.....	.....	. 87 <sup>3</sup> / <sub>4</sub>	. 58
1872.....	.....	.....	.....	.....	. 96 <sup>1</sup> / <sub>2</sub>	. 62
1873.....	.....	.....	.....	.....	. 96 <sup>1</sup> / <sub>2</sub>	. 67 <sup>1</sup> / <sub>2</sub>
1874.....	.....	.....	.....	.....	. 96 <sup>1</sup> / <sub>2</sub>	. 69 <sup>1</sup> / <sub>2</sub>
1875.....	.....	.....	.....	.....	1. 22 <sup>3</sup> / <sub>4</sub>	. 75 <sup>1</sup> / <sub>2</sub>
1876.....	.....	.....	.....	.....	1. 22 <sup>3</sup> / <sub>4</sub>	. 79 <sup>1</sup> / <sub>2</sub>
1877.....	.....	.....	.....	.....	1. 22 <sup>3</sup> / <sub>4</sub>	. 78 <sup>1</sup> / <sub>2</sub>
1878.....	.....	.....	.....	.....	1. 22 <sup>3</sup> / <sub>4</sub>	. 77 <sup>1</sup> / <sub>2</sub>
1879.....	.....	.....	.....	.....	1. 22 <sup>3</sup> / <sub>4</sub>	. 72 <sup>1</sup> / <sub>2</sub>
1880.....	.....	.....	.....	.....	1. 22 <sup>3</sup> / <sub>4</sub>	. 72 <sup>1</sup> / <sub>2</sub>
1881.....	.....	.....	.....	.....	1. 23 <sup>3</sup> / <sub>4</sub>	. 72 <sup>1</sup> / <sub>2</sub>
1882.....	.....	.....	.....	.....	1. 23 <sup>3</sup> / <sub>4</sub>	. 68 <sup>1</sup> / <sub>2</sub>
1883.....	.....	.....	.....	.....	1. 24	. 71 <sup>1</sup> / <sub>2</sub>
1884.....	.....	.....	.....	.....	1. 24	. 68
1885.....	.....	.....	.....	.....	1. 24	. 67 <sup>1</sup> / <sub>2</sub>
1886.....	.....	.....	.....	.....	1. 23 <sup>3</sup> / <sub>4</sub>	. 64 <sup>1</sup> / <sub>2</sub>
1887.....	.....	.....	.....	.....	1. 23 <sup>3</sup> / <sub>4</sub>	. 69 <sup>1</sup> / <sub>2</sub>
1888.....	.....	.....	.....	.....	1. 23 <sup>3</sup> / <sub>4</sub>	. 73
1889.....	.....	.....	.....	.....	1. 23 <sup>3</sup> / <sub>4</sub>	. 77 <sup>1</sup> / <sub>2</sub>
1890.....	.....	.....	.....	.....	1. 50	. 75 <sup>1</sup> / <sub>2</sub>
1891.....	.....	.....	.....	.....	1. 50	. 74 <sup>1</sup> / <sub>2</sub>
1892.....	.....	.....	.....	.....	1. 50 <sup>3</sup> / <sub>4</sub>	. 71 <sup>1</sup> / <sub>2</sub>
1893.....	.....	.....	.....	.....	1. 50 <sup>3</sup> / <sub>4</sub>	. 71
1894.....	.....	.....	.....	.....	1. 50 <sup>3</sup> / <sub>4</sub>	. 73 <sup>3</sup> / <sub>4</sub>
1895.....	.....	.....	.....	.....	1. 50	. 78 <sup>1</sup> / <sub>2</sub>
1896.....	.....	.....	.....	.....	1. 50	. 70 <sup>1</sup> / <sub>2</sub>

a Not reported.



TABLE II.—AVERAGE DAILY WAGES IN CERTAIN CITIES OF GREAT BRITAIN, FRANCE, AND BELGIUM, 1870 TO 1896—Concluded.

TEAMSTERS.

Year.	Great Britain.				Paris, France.	Liege, Belgium.
	London.	Man- chester.	Glasgow.	Average.		
1870.....					\$1. 18 <sup>1</sup> / <sub>4</sub>	\$0. 55 <sup>1</sup> / <sub>2</sub>
1871.....					1. 18 <sup>1</sup> / <sub>4</sub>	. 55 <sup>1</sup> / <sub>2</sub>
1872.....					1. 18 <sup>1</sup> / <sub>4</sub>	. 55 <sup>1</sup> / <sub>2</sub>
1873.....					1. 18 <sup>1</sup> / <sub>4</sub>	. 55 <sup>1</sup> / <sub>2</sub>
1874.....					1. 18 <sup>1</sup> / <sub>4</sub>	. 55 <sup>1</sup> / <sub>2</sub>
1875.....					1. 20	. 55 <sup>1</sup> / <sub>2</sub>
1876.....					1. 20	. 55 <sup>1</sup> / <sub>2</sub>
1877.....					1. 20	. 55 <sup>1</sup> / <sub>2</sub>
1878.....					1. 21	. 55 <sup>1</sup> / <sub>2</sub>
1879.....					1. 21	. 55 <sup>1</sup> / <sub>2</sub>
1880.....					1. 21	. 55 <sup>1</sup> / <sub>2</sub>
1881.....					1. 21	. 55 <sup>1</sup> / <sub>2</sub>
1882.....					1. 21	. 55 <sup>1</sup> / <sub>2</sub>
1883.....					1. 21	. 55 <sup>1</sup> / <sub>2</sub>
1884.....					1. 21	. 55 <sup>1</sup> / <sub>2</sub>
1885.....					1. 21	. 55 <sup>1</sup> / <sub>2</sub>
1886.....					1. 21	. 55 <sup>1</sup> / <sub>2</sub>
1887.....					1. 21	. 55 <sup>1</sup> / <sub>2</sub>
1888.....					1. 21	. 55 <sup>1</sup> / <sub>2</sub>
1889.....					1. 26 <sup>3</sup> / <sub>4</sub>	. 55 <sup>1</sup> / <sub>2</sub>
1890.....					1. 26 <sup>3</sup> / <sub>4</sub>	. 55 <sup>1</sup> / <sub>2</sub>
1891.....					1. 26 <sup>3</sup> / <sub>4</sub>	. 55 <sup>1</sup> / <sub>2</sub>
1892.....					1. 26 <sup>3</sup> / <sub>4</sub>	. 55 <sup>1</sup> / <sub>2</sub>
1893.....					1. 26 <sup>3</sup> / <sub>4</sub>	. 55 <sup>1</sup> / <sub>2</sub>
1894.....					1. 26 <sup>3</sup> / <sub>4</sub>	. 59 <sup>1</sup> / <sub>4</sub>
1895.....					1. 26 <sup>3</sup> / <sub>4</sub>	. 59 <sup>1</sup> / <sub>4</sub>
1896.....					1. 26 <sup>3</sup> / <sub>4</sub>	. 59 <sup>1</sup> / <sub>4</sub>

## RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

### MASSACHUSETTS.

*Twenty-eighth Annual Report of the Massachusetts Bureau of Statistics of Labor.* March, 1898. Horace G. Wadlin, Chief. xiv, 367 pp.

This report consists of three parts, as follows: Part I, comparative wages and prices, 42 pages; Part II, graded weekly wages, 268 pages; Part III, labor chronology, 1897, 57 pages.

PART I, COMPARATIVE WAGES AND PRICES.—The statistics contained in this part of the report were collected from original sources by agents of the Massachusetts Bureau of Statistics of Labor. A comparison is made of the data for the years 1860, 1872, 1878, 1881, and 1897. The figures for all but the last-named year were taken from previous reports of the bureau. The statistics of this part relate only to Massachusetts. Three items are considered in this report, namely, average weekly wages, average retail prices, and the purchasing power of money.

The average figures for 1897, like those for previous years, were collected directly from different establishments in the specified industries by the agents of the bureau, who, for that purpose, visited at the close of the year the industrial centers of the Commonwealth, and, by the cooperation of the proprietors, obtained the information.

The retail prices were obtained, in the different towns and cities which were visited, at establishments patronized by working people, together with information as to rents and prices for board such as are paid by wage workers.

The report shows the average weekly wages, and the increase or decrease in 1897 over 1872 and 1881, in a large number of occupations in 22 leading industries. These are then summarized by industries.

In general, wages in 1897 were higher than in 1881 and lower than in 1872.

In 1897, as compared with 1881, there was an increase in wage rates in 15 of the classified industries and a decrease in 8. The following industries showed an increase of wage rates, the percentage of increase being given in each case: Agriculture, as relates to laborers paid by the month, with board, 2.78 per cent; boots and shoes, 7.59 per cent; building trades, 43.91 per cent; cabinetmaking, 13.12 per cent; carpetings, 39.06 per cent; carriages, 0.60 per cent; cotton goods, 1.58 per cent; glass, 12.64 per cent; metals and metallic goods (fine work), 15.09 per cent; musical instruments, 14.23 per cent; printing, 31.04 per cent; rubber goods, elastic fabrics, 31.75 per cent; stone, 4.68 per cent; straw goods, 15.31 per cent, and woolen goods, 4.93 per cent. A decline in wage rates was shown in the following industries: Agriculture, as relates to laborers paid by the day, without board, 8.76 per cent; black-



smiths,(a) 2.32 per cent; clothing (ready-made), 17.34 per cent; hosiery, 12.23 per cent; leather, 4.62 per cent; machines and machinery, 34.47 per cent; metals and metallic goods (not fine work), 29.14 per cent, and paper, 1.69 per cent.

Comparisons of wage rates for 1897 and 1872 could be made in only 11 of the 23 industries represented. Of these, 7 showed a decline and 4 an increase of wage rates. Those showing an increase were: Building trades, 1.09 per cent; carpetings, 68.92 per cent; metals and metallic goods (not fine work), 56.93 per cent, and paper, 26.32 per cent. Those showing a decline in wages were: Agriculture, as relates to laborers paid by the month, with board, 19.88 per cent; blacksmiths, 2.68 per cent; boots and shoes, 6.37 per cent; cabinetmaking, 8.37 per cent; carriages, 21.95 percent; clothing (ready-made), 7.21 per cent, and machines and machinery, 21.97 per cent. The wages paid in the blacksmithing, ready-made clothing, and machines and machinery industries show a decline in 1897 when compared with the rates both for 1872 and 1881, while in the building trades and carpetings industries an increase is shown in each of the two comparisons.

The summary by industries is shown in the following presentation:

AVERAGE WEEKLY WAGES, BY INDUSTRIES, 1872-1897.

Industries.	Average weekly wages, gold standard.			Increase (+) or decrease (—) in 1897 as compared with 1872.		Increase (+) or decrease (—) in 1897 as compared with 1881.	
	1872.	1881.	1897.	Amount.	Per cent.	Amount.	Per cent.
Agriculture:							
Laborers, per month, with board.....	\$23.09	\$18.00	\$18.50	—\$4.59	—19.88	+\$0.50	+ 2.78
Laborers, per day, without board.....		1.37	1.25			— .12	— 8.76
Blacksmiths .....	16.44	16.38	16.00	— .44	— 2.68	— .38	— 2.32
Boots and shoes.....	12.71	11.06	11.90	— .81	— 6.37	+ .84	+ 7.59
Building trades .....	15.66	11.00	15.83	+ .17	+ 1.09	+ 4.83	+43.91
Cabinetmaking.....	14.21	11.51	13.02	— 1.19	— 8.37	+ 1.51	+13.12
Carpetings .....	4.89	5.94	8.26	+ 3.37	+68.92	+ 2.32	+39.06
Carriages .....	17.31	13.43	13.51	— 3.80	—21.95	+ .08	+ .60
Clothing (ready-made) .....	9.71	10.90	9.01	— .70	— 7.21	— 1.89	—17.34
Cotton goods .....		7.59	7.71			+ .12	+ 1.58
Glass.....		10.68	12.03			+ 1.35	+12.64
Hosiery.....		10.22	8.97			— 1.25	—12.23
Leather .....		11.05	10.54			— .51	— 4.62
Machines and machinery.....	13.84	16.42	10.80	— 3.04	—21.97	— 5.68	—34.47
Metals and metallic goods .....	6.06	13.42	9.51	+ 3.45	+56.93	— 3.91	—29.14
Metals and metallic goods (fine work) .....		10.07	11.59			+ 1.52	+15.09
Musical instruments .....		15.81	18.06			+ 2.25	+14.23
Paper .....	7.37	9.47	9.31	+ 1.94	+26.32	— .16	— 1.69
Printing .....		14.95	19.59			+ 4.64	+31.04
Rubber goods, elastic fabrics .....		7.56	9.96			+ 2.40	+31.75
Stone.....		13.25	13.87			+ .62	+ 4.68
Straw goods.....		10.06	11.60			+ 1.54	+15.31
Woolen goods .....		8.12	8.52			+ .40	+ 4.93

In order to determine whether real wages have gone up or down, prices of commodities and the purchasing power of money must be taken into account. The table following shows for the years 1860, 1872, 1878, 1881, and 1897 the average retail prices of commodities.

<sup>a</sup> Independently classified outside the industry "Metals and metallic goods."



## AVERAGE RETAIL PRICES, 1860-1897.

Articles.	Unit.	Average retail prices, gold standard.					Increase (+) or decrease (—) in 1897 as compared with 1872.		Increase (+) or decrease (—) in 1897 as compared with 1881.		
		1860.	1872.	1878.	1881.	1897.	Amount.	Per ct.	Amount.	Per ct.	
GROCERIES.											
Flour, wheat, superfine...	bbl	\$7.61	\$10.75	\$8.63	\$9.91½	\$6.62½	—\$4.12½	—38.37	—\$3.29	—33.18	
Flour, wheat, family .....	bbl	7.14	12.75	7.96	8.57	5.80	—6.95	—54.51	—2.77	—32.32	
Flour, rye .....	lb	.03	.03¼	.03½	.04½	.03⅞	— .00½	—2.56	— .01⅓	—29.63	
Corn meal .....	lb	.02¼	.01¾	.02	.03⅛	.03	+ .01¼	+71.43	— .00⅛	—4.00	
Codfish, dry .....	lb	.05¼	.08¼	.06	.07½	.07⅔	— .01	—12.12	— .00⅕	—2.67	
Rice .....	lb	.07½	.11¼	.09¼	.09¾	.07⅞	— .03¾	—30.16	— .01⅞	—19.41	
Beans .....	qt	.08	.09½	.08¼	.13¼	.07	— .02½	—26.32	— .06¼	—47.17	
Tea, oolong .....	lb	.54¾	.69	.60¼	.58	.46⅕	— .22⅕	—32.75	— .11⅞	—20.00	
Coffee, Rio, green .....	lb	.21½	.34¼	.23½	.18½	.31⅕	— .03⅒	—8.91	+ .12⅔	+68.65	
Coffee, roasted .....	lb	.23	.42⅓	.26½	.28¾	.28	— .14½	—34.12	— .00¾	—2.61	
Sugar, good brown .....	lb	.08¼	.10¼	.08¾	.09⅛	.04⅞	— .05⅓	—53.66	— .04⅓	—47.64	
Sugar, coffee .....	lb	.09	.10½	.09½	.10	.04⅝	— .05⅕	—55.56	— .05⅓	—53.33	
Sugar, granulated .....	lb	.10¼	.12	.10	.11	.05⅓	— .06¼	—52.08	— .05½	—47.73	
Molasses, New Orleans .....	gal	.50¾	.70	.57¼	.66½	.50	— .20	—28.57	— .16½	—24.81	
Molasses, Porto Rico .....	gal	.57¾	.76¼	.68	.62⅛	.49½	— .26¾	—35.08	— .12⅞	—20.32	
Sirup .....	gal	.63¾	.75	.86¼	.76¾	.52⅞	— .22½	—29.52	— .23⅞	—31.13	
Soap, common .....	lb	.08¾	.08	.08	.06	.04¼	— .03¾	—46.88	— .02⅝	—37.04	
Starch .....	lb	.11	.12¼	.09½	.09¼	.07⅓	— .05⅒	—41.22	— .02⅒	—22.16	
PROVISIONS.											
Beef, roasting .....	lb	.11	.19	.14½	.17	.14⅔	— .04⅓	—22.81	— .02⅓	—13.73	
Beef, soup .....	lb	.04⅔	.07½	.05¼	.05⅓	.05⅓	— .01⅞	—25.33	+ .00⅒	+1.82	
Beef, rump steak .....	lb	.14¾	.29½	.20¾	.20¼	.25⅔	— .03⅞	—12.99	+ .05⅕	+26.75	
Beef, corned .....	lb	.06½	.10½	.08	.10¼	.09⅞	— .01⅒	—10.20	— .00⅞	—8.01	
Veal, fore quarter .....	lb	.07¼	.10½	.10¼	.11¾	.08	— .02⅓	—23.81	— .03¾	—31.91	
Veal, hind quarter .....	lb	.11	.17	.15¼	.15¾	.12⅞	— .04⅞	—24.84	— .02¼	—18.87	
Veal, cutlets .....	lb	.14	.28¼	.20	.20	.21¾	— .06½	—23.01	+ .01¾	+8.75	
Mutton, fore quarter .....	lb	.07½	.10¼	.10¼	.11⅓	.07⅞	— .03⅞	—30.63	— .04⅒	—36.97	
Mutton, leg .....	lb	.12½	.19	.17¼	.16¼	.11¾	— .07¼	—38.16	— .04½	—27.69	
Mutton, chops .....	lb	.13¼	.15¼	.18½	.18⅝	.20	+ .04¾	+31.15	+ .01⅕	+9.89	
Pork, fresh .....	lb	.11	.12½	.10	.13	.10	— .02½	—20.00	— .03	—23.08	
Pork, salted .....	lb	.11	.11	.09¾	.13¼	.09⅔	— .01⅞	—16.18	— .04⅒	—30.40	
Hams, smoked .....	lb	.13	.13½	.12½	.15¼	.13⅓	— .00	—1.26	— .01⅒	—12.57	
Shoulders, corned .....	lb	.08¾	.10¼	.09¼	.12	.09	— .01¼	—12.20	— .03	—25.00	
Sausages .....	lb	.11½	.12½	.11¼	.13½	.10⅞	— .01⅔	—13.36	— .02⅔	—20.16	
Lard .....	lb	.13¼	.14¾	.10¾	.14¾	.08	— .06¾	—45.76	— .06¾	—45.76	
Butter .....	lb	.21¾	.39¼	.25¼	.34⅔	.24⅓	— .14½	—38.00	— .10½	—29.81	
Cheese .....	lb	.13¼	.17½	.12¼	.17½	.14	— .03½	—20.00	— .03½	—20.00	
Potatoes .....	bush	.59	1.02	.97¾	1.25¾	1.01⅓	— .00⅔	— .65	— .24⅕	—19.42	
Milk .....	qt	.04¾	.08	.05¼	.06	.05⅔	— .02⅓	—29.17	— .00⅓	—5.56	
Eggs .....	doz	.20¼	.30	.25	.32½	.23½	— .06½	—21.67	— .09	—27.69	
FUEL.											
Coal .....	ton	6.40	9.25	6.45	7.83¾	6.00	—3.25	—35.14	—1.83¾	—23.44	
Wood, hard .....	cord	6.49	10.12½	6.74	8.96¾	8.41⅓	—1.71⅓	—16.92	— .55⅞	—6.20	
Wood, pine .....	cord	4.42	7.00	5.04	7.09	6.97	— .03	— .43	— .12	—1.69	
DRY GOODS.											
Shirting, 4-4 brown .....	yd	.09¼	.13	.07½	.08¾	.08½	— .04½	—34.62	— .00¼	—2.86	
Shirting, 4-4 bleached .....	yd	.10¾	.16	.09½	.11	.08½	— .07½	—46.88	— .02½	—22.73	
Sheeting, 9-8 brown .....	yd	.10¾	.14	.09	.10¾	.08½	— .05½	—39.29	— .02¼	—20.93	
Sheeting, 9-8 bleached .....	yd	.13¼	.19½	.11¾	.13¾	.09¾	— .09¾	—50.00	— .04	—29.09	
Cotton flannel .....	yd	.15¾	.27½	.14¾	.16	.10	— .17½	—63.64	— .06	—37.50	
Tickings .....	yd	.17¼	.24	.17½	.16¾	.11	— .13	—54.17	— .05¾	—34.33	
Prints .....	yd	.11	.11¾	.07¾	.07¾	.05⅓	— .06⅕	—54.61	— .02⅕	—31.18	
BOOTS.											
Men's, heavy .....	pair	2.75	3.94	3.24	3.18¾	2.05½	—1.88½	—47.84	—1.13¼	—35.53	
RENTS.											
Four-room tenements .....	mo	4.45	14.75	5.55	7.99	8.63⅞	—6.11⅞	—41.44	+ .64⅞	+8.10	
Six-room tenements .....	mo	7.54	16.00	9.43	12.25	11.61	—4.39	—27.44	— .64	—5.22	
BOARD.											
Men .....	w'k	2.79	5.62	4.19	4.75	4.62	—1.00	—17.79	— .13	—2.74	
Women .....	w'k	1.79	3.75	2.63	3.00	3.66	— .09	—2.40	+ .66	+22.00	



By giving to the price quotation for each article in the group the same mathematical effect upon the general average for the group that the expenditure for the article bore upon the total family expenditure, as determined by a large number of budgets of family expenses, it is found that the price of groceries declined 30 per cent in 1897 as compared with 1872, and 6.67 per cent as compared with 1881. Provisions show a decrease of 18.52 per cent in 1897 as compared with both 1872 and 1881.

With regard to groceries, all articles, except green Rio coffee, were cheaper in 1897 than in 1881. These include flour, corn meal, dry cod-fish, rice, beans, oolong tea, roasted coffee, sugar, molasses, sirup, common soap, and starch.

The prices of provisions were generally lower in 1897 than in 1881. Roast and corned beef, fore and hind quarters of veal, fore quarters and legs of mutton, fresh and salted pork, smoked hams, corned shoulders, sausages, lard, butter, cheese, potatoes, milk, and eggs were quoted lower, and rump steak, soup beef, veal cutlets, and mutton chops were quoted higher.

A comparison of the prices in 1872 with those in 1897 show lower quotations for the latter year for all articles of groceries and provisions except corn meal and mutton chops. In obtaining this data great care was taken to secure quotations for articles of uniform quality from establishments mainly patronized by working people.

Fuel, dry goods, and men's heavy boots were lower in price in 1897 than in either 1881 or 1872.

Under the head of rents, quotations for four-room and six-room tenements are given. The rates in both cases were lower in 1897 than in 1872. A comparison of rates in 1881 with those of 1897 shows that they were slightly lower in the case of six-room tenements and slightly higher in the case of four-room tenements.

The rates for board, for both men and women, were lower in 1897 than in 1872, and for men slightly lower than in 1881, while for women the rates were higher in 1897 than in 1881.

The exact significance of the change in prices of commodities can be seen in the table following, showing the quantity of each article purchasable for \$1 in each of the years included in the tables of wages and prices.

PURCHASING POWER OF MONEY, 1860-1897.

Articles.	Unit.	What \$1 would buy in—					Increase (+) or decrease (—) in 1897 as compared with 1872.		Increase (+) or decrease (—) in 1897 as compared with 1881.					
		1860.	1872.	1878.	1881.	1897.	Num-ber.	Per cent.	Num-ber.	Per cent.				
GROCERIES.														
Flour, wheat, superfine.....	lbs..	25.64	18.18	22.72	19.76	30.30	+	12.12	+	66.67	+	10.54	+	53.34
Flour, wheat, family.....	lbs..	27.77	15.38	25.00	22.87	34.48	+	19.10	+	124.19	+	11.61	+	50.77
Flour, rye.....	lbs..	33.33	31.25	28.57	22.22	32.26	+	1.01	+	3.23	+	10.04	+	45.18
Corn meal.....	lbs..	45.45	55.55	47.62	32.00	34.48	—	21.07	—	37.93	+	2.43	+	7.75
Codfish dry.....	lbs..	18.87	12.20	16.67	13.33	13.89	+	1.69	+	13.85	+	.56	+	4.20
Rice.....	lbs..	13.33	8.93	10.87	10.25	12.82	+	3.89	+	43.56	+	2.57	+	25.07
Beans.....	qts..	12.66	10.52	12.05	7.54	14.29	+	3.77	+	35.84	+	6.75	+	89.52
Tea, oolong.....	lbs..	1.83	1.45	1.66	1.72	2.16	+	.71	+	48.97	+	.44	+	25.58
Coffee, Rio, green.....	lbs..	4.67	2.92	4.22	5.40	3.21	+	.29	+	9.93	—	2.19	—	40.56
Coffee, roasted.....	lbs..	4.36	2.35	3.77	3.47	3.57	+	1.22	+	51.91	+	.10	+	2.88
Sugar good brown.....	lbs..	12.19	9.80	11.63	10.95	21.28	+	11.48	+	117.14	+	10.33	+	94.34
Sugar, coffee.....	lbs..	10.99	9.52	10.61	10.00	21.74	+	12.22	+	128.36	+	11.74	+	117.40
Sugar, granulated.....	lbs..	9.70	8.33	10.00	9.09	17.86	+	9.53	+	114.41	+	8.77	+	96.48
Molasses, New Orleans.....	galls	1.97	1.43	1.74	1.50	2.00	+	.57	+	39.86	+	.50	+	33.33
Molasses, Porto Rico.....	galls	1.73	1.31	1.45	1.60	2.02	+	.71	+	54.20	+	.42	+	26.25
Sirup.....	galls	1.57	1.33	1.16	1.30	1.89	+	.56	+	42.11	+	.59	+	45.38
Soap, common.....	lbs..	11.49	12.50	12.34	14.81	23.81	+	11.31	+	90.48	+	9.00	+	60.77
Starch.....	lbs..	9.18	8.19	10.64	10.81	14.08	+	5.89	+	71.92	+	3.27	+	30.25
PROVISIONS.														
Beef, roasting.....	lbs..	9.18	5.26	6.94	5.88	6.85	+	1.59	+	30.23	+	.97	+	16.50
Beef, soup.....	lbs..	20.83	13.33	18.86	18.18	17.86	+	4.53	+	33.98	—	.32	—	1.76
Beef, rump steak.....	lbs..	6.85	3.39	4.85	4.93	3.89	+	.50	+	14.75	—	1.04	—	21.10
Beef, corned.....	lbs..	15.38	9.52	12.34	9.75	10.61	+	1.12	+	11.76	+	.89	+	9.13
Veal, fore-quarter.....	lbs..	13.70	9.52	9.80	8.50	12.66	+	3.14	+	32.98	+	4.16	+	48.94
Veal, hind quarter.....	lbs..	9.18	5.85	6.53	6.34	7.87	+	2.02	+	34.53	+	1.53	+	24.13
Veal, cutlets.....	lbs..	7.09	3.54	5.05	5.00	4.61	+	1.07	+	30.23	—	.39	—	7.80
Mutton, fore quarter.....	lbs..	13.51	9.80	9.70	8.82	14.08	+	4.28	+	43.67	+	5.26	+	59.64
Mutton, leg.....	lbs..	8.07	5.26	5.78	5.97	8.55	+	3.29	+	62.55	+	2.58	+	43.22
Mutton, chops.....	lbs..	7.46	6.51	5.40	5.48	5.05	—	1.46	—	22.43	—	.43	—	7.85
Pork, fresh.....	lbs..	9.26	8.00	10.00	7.69	10.00	+	2.00	+	25.00	+	2.31	+	30.04
Pork, salted.....	lbs..	9.09	9.09	10.31	7.54	10.87	+	1.78	+	19.58	+	3.33	+	44.16
Hams, smoked.....	lbs..	7.75	7.41	8.07	6.55	7.52	+	.11	+	1.48	+	.97	+	14.81
Shoulders, corned.....	lbs..	11.49	9.80	10.75	8.33	11.24	+	1.44	+	14.69	+	2.91	+	34.93
Sausages.....	lbs..	8.77	8.00	8.84	7.47	9.26	+	1.26	+	15.75	+	1.79	+	23.96
Lard.....	lbs..	7.57	7.87	9.34	6.77	12.66	+	4.79	+	60.86	+	5.89	+	87.00
Butter.....	lbs..	4.58	2.55	3.97	2.88	4.13	+	1.58	+	61.96	+	1.25	+	43.40
Cheese.....	lbs..	7.52	5.71	8.13	5.71	7.19	+	1.48	+	25.92	+	1.48	+	25.92
Potatoes.....	bush	1.67	.97	1.03	.79	.99	+	.02	+	2.06	+	.20	+	25.32
Milk.....	qts.	21.27	12.50	18.86	16.66	17.86	+	5.36	+	42.88	+	1.20	+	7.20
Eggs.....	doz.	4.92	3.33	4.01	3.07	4.27	+	.94	+	28.23	+	1.20	+	39.09
FUEL.														
Coal.....	lbs..	312.50	217.39	310.56	255.18	333.33	+	115.94	+	53.33	+	78.15	+	30.63
Wood, hard.....	c. ft.	1.23	.79	1.18	.89	.95	+	.16	+	20.25	+	.06	+	6.74
Wood, pine.....	c. ft.	1.90	1.14	1.58	1.12	1.15	+	.01	+	.88	+	.03	+	2.68
DRY GOODS.														
Shirting, 4-4 brown.....	yds.	10.87	7.69	13.33	11.42	11.76	+	4.07	+	52.93	+	.34	+	2.98
Shirting, 4-4 bleached.....	yds.	9.26	6.25	10.64	9.09	11.76	+	5.51	+	83.16	+	2.67	+	29.37
Sheeting, 9-8 brown.....	yds.	9.34	7.14	11.11	9.30	11.76	+	4.62	+	64.71	+	2.46	+	26.45
Sheeting, 9-8 bleached.....	yds.	7.57	5.13	8.47	7.27	10.31	+	5.18	+	100.97	+	3.04	+	41.82
Cotton flannel.....	yds.	6.33	3.63	6.80	6.25	10.00	+	6.37	+	175.48	+	3.75	+	60.00
Ticking.....	yds.	5.81	4.17	5.78	5.97	9.09	+	4.92	+	117.99	+	3.12	+	52.26
Prints.....	yds.	9.09	8.55	12.98	12.90	18.87	+	10.32	+	120.70	+	5.97	+	46.28
RENTS.														
Four-room tenements.....	days	6.75	2.03	5.40	3.75	3.53	+	1.50	+	73.89	—	.22	—	5.87
Six-room tenements.....	days	3.98	1.87	3.18	2.45	2.62	+	.75	+	40.11	+	.17	+	6.94
BOARD.														
Men.....	days	2.51	1.24	1.67	1.47	1.52	+	.28	+	22.58	+	.05	+	3.40
Women.....	days	3.92	1.87	2.63	2.33	1.92	+	.05	+	2.67	—	.41	—	17.60

It is plain from what has been said as to the decline in prices that for most of the commodities larger quantities were obtainable for \$1



in 1897 than in 1881 or 1872. Some of the percentages of increase are very large, whether the figures for 1881 or 1872 be taken as the base. For example, the quantity of superfine or family flour purchasable for \$1 shows an increase in 1897 as against 1881 of more than 50 per cent, and an even greater increase when compared with 1872. The increase in the quantity of granulated sugar purchasable for \$1 in 1897, as compared with 1881, amounts to 96.48 per cent, and as compared with 1872, to 114.41 per cent. The quantities of many articles of provisions, of coal, and of dry goods thus purchasable also show large percentages of increase.

**PART II, GRADED WEEKLY WAGES.**—This subject is treated so extensively that only a portion of the statistics appears in each annual report. The publication was begun in the twenty-sixth annual report of the bureau. The wage data are arranged alphabetically according to occupations, the present report relating to those having the initial letters H to O, inclusive.

**PART III, LABOR CHRONOLOGY, 1897.**—This part of the report comprises a summary of the leading events affecting labor during the year 1897, arranged in chronological order under each of the three heads, hours of labor, wages, and trade unions, respectively, and a résumé of labor legislation in 1898.

## NEW YORK.

*Fourteenth Annual Report of the Bureau of Statistics of Labor of the State of New York, for the year 1896.* Transmitted to the Legislature January 18, 1897. John T. McDonough, Commissioner. 1,047 pp.

This report is presented in seven parts, as follows: Part I, Progress of business in the productive industries of the State of New York for five years ending June 1, 1895, 711 pages; Part II, Condition of organized labor, 97 pages; Part III, Wholesale and retail prices of groceries and meats for five years, 1891–1895, inclusive, 47 pages; Part IV, Gas and electric lighting, 43 pages; Part V, Wages, condition, and treatment of unorganized workingwomen in New York City, 35 pages; Part VI, Report of the debate on prison labor in the New York constitutional convention of 1894, 74 pages; Part VII, Free employment bureau, 15 pages.

**PRODUCTIVE INDUSTRIES.**—The greater part of the entire report is taken up with a tabulation showing by localities and occupations the highest, lowest, and average daily rates of wages, average weekly hours of labor, and number of establishments reporting, for five years ending June 1, 1895. This part of the report also contains statistical tables and an analysis relating to yearly wages paid and the volume of business done during the above-mentioned period by the establishments reporting.



The statistics relating to annual wages paid in the productive industries were compiled from schedules returned to the bureau by 2,290 manufacturing establishments, embracing 64 general industries. Every county in the State but one is represented in the tabulation.

The returns show that since 1892 there was a steady decline in the average yearly wages per employee. In 1891 the average yearly wages per employee were \$465.51; in 1892, \$466.18; in 1893, \$460.41; in 1894, \$439.97, and in 1895, \$436.23. The number of persons employed was 200,333 in 1891, 215,830 in 1892, 236,908 in 1893, 225,137 in 1894, and 253,139 in 1895. The following table shows for establishments reporting for five years, in 31 of the leading industries, the total cost of production, the amount and proportion paid for wages, the manufacturers' earnings, and the relation of the same to the total cost of production, for the five years ending June 1, 1895:

LABOR COST AND MANUFACTURERS' EARNINGS WITH REFERENCE TO COST OF PRODUCTION IN 31 LEADING INDUSTRIES FOR THE FIVE YEARS ENDING JUNE 1, 1895.

Industries.	Estab-lish-ments report-ing.	Total cost of production.	Wages paid.		Manufacturers' earn-ings.	
			Amount.	Per cent of total cost of produc-tion.	Amount.	Per cent of total cost of produc-tion.
Boots and shoes .....	49	\$42,962,508.28	\$12,621,645.61	29.37	\$3,269,784.61	7.61
Building .....	123	68,172,647.96	17,810,058.67	26.12	1,161,133.00	1.70
Carpets, oilcloths, etc .....	11	50,251,165.52	12,070,851.06	24.02	6,316,659.37	12.57
Carriages, wagons, etc .....	36	22,439,119.33	7,564,485.99	33.71	1,788,231.22	7.96
Chemicals, acids, etc .....	14	23,331,136.60	3,522,326.91	15.09	2,399,094.59	10.28
Cigars, cigarettes, and tobacco ..	46	46,675,479.20	15,596,084.67	33.41	6,629,148.06	14.20
Clocks, watches, jewelry, etc...	10	20,848,083.75	4,934,063.63	23.66	2,391,110.59	11.46
Clothing .....	123	162,544,584.22	45,477,782.94	27.97	22,756,739.22	14.00
Cooking, heating, and sanitary apparatus .....	25	24,237,930.61	10,360,960.44	42.74	2,759,432.19	11.38
Cotton goods .....	22	36,337,850.73	10,967,985.36	30.18	2,392,048.76	6.58
Earthen and stone ware .....	8	27,236,114.45	6,677,769.47	24.51	394,192.14	1.44
Food products .....	46	91,079,094.48	9,602,144.37	10.54	3,515,920.26	3.86
Furniture .....	74	36,290,236.88	12,000,342.33	33.06	3,400,203.33	9.36
Glass and glass goods .....	22	13,764,902.84	5,268,538.88	38.27	1,265,253.55	9.19
Gloves and mittens .....	18	10,679,592.90	3,578,911.96	33.51	1,810,683.47	16.95
Knit goods .....	61	50,194,407.27	13,897,549.92	27.68	4,145,196.34	8.25
Leather and leather goods .....	36	31,251,369.69	5,932,972.57	18.98	2,697,618.20	8.63
Liquors (malt and distilled) ...	27	37,785,236.54	4,712,211.63	12.47	5,167,010.26	13.67
Machines, machinery, etc .....	76	58,618,944.35	23,601,458.71	40.26	7,875,132.78	13.43
Metals and metallic goods .....	176	117,174,981.06	40,612,947.60	34.66	12,371,782.17	10.56
Musical instruments and ma-terials .....	21	10,512,036.59	4,682,599.69	44.55	1,249,483.52	11.89
Oils and illuminating fluids .....	12	85,523,374.05	4,755,557.96	5.56	3,791,081.75	4.43
Paints and colors .....	16	19,362,889.15	2,209,364.07	11.41	3,314,279.62	17.12
Paper and paper goods .....	69	61,868,795.46	11,150,417.63	18.01	6,656,218.67	10.76
Printing, publishing, book-binding, etc .....	42	22,854,284.70	10,657,023.70	46.59	4,900,135.19	21.44
Railroad construction, repair-ing, etc .....	16	44,087,213.25	14,894,745.17	33.78	1,262,472.10	2.86
Rubber goods .....	9	11,306,027.81	2,792,613.86	24.70	771,049.65	6.82
Silk goods .....	20	17,429,904.94	4,639,820.81	26.62	1,054,763.56	6.05
Soap, candles, and grease .....	12	44,547,439.72	3,245,364.48	7.28	4,378,420.30	9.83
Wooden goods .....	53	24,676,646.79	6,304,648.18	25.55	1,738,135.85	7.04
Woolen and worsted goods .....	17	25,226,176.15	6,490,915.28	25.73	1,254,835.76	4.97

ORGANIZED LABOR.—In 1896 returns were received from 962 out of 1,100 labor unions in the State. These consist of data relating to mem-



bership, condition of the trade, hours of labor, etc. The following table shows the membership of labor organizations in 1894, 1895, and 1896:

NUMBER AND MEMBERSHIP OF LABOR ORGANIZATIONS, BY INDUSTRIES, 1894 TO 1896.

Industries.	1894.		1895.		1896.	
	Organi- zations report- ing.	Mem- bers.	Organi- zations report- ing.	Mem- bers.	Organi- zations report- ing.	Mem- bers.
Building trades.....	244	44,151	249	48,638	247	51,079
Cigars, cigarettes, and tobacco.....	53	8,722	54	9,089	54	9,799
Clothing.....	55	32,600	70	44,031	67	24,031
Coach drivers and livery stable employees.....	4	779	4	1,020	7	3,973
Food products.....	23	2,187	27	2,793	32	2,842
Furniture.....	8	1,176	8	1,259	6	917
Glassworks.....	15	882	15	1,301	12	1,042
Hats, caps, and furs.....	15	2,964	16	3,682	14	2,287
Hotel, restaurant, and park employees.....	16	1,377	16	1,351	14	1,412
Iron and steel.....	87	7,464	93	8,522	103	9,868
Leather.....	14	1,920	17	2,305	13	2,119
Malt liquors and mineral waters.....	24	3,153	26	3,411	29	4,311
Marine trades.....	15	7,115	15	8,064	16	7,974
Metal workers.....	8	598	11	846	10	1,322
Musicians and musical instrument makers.....	22	5,644	22	5,956	22	5,353
Printing, binding, lithographing, photo-engrav- ing, electrotyping, stereotyping, and type- founding.....	52	11,059	58	11,998	56	13,650
Railroads (steam).....	112	8,503	116	8,958	123	9,365
Railroads (street surface).....	1	2,500	1	1,000	1	1,000
Stone.....	27	5,153	28	4,993	33	5,582
Street paving.....	10	797	10	812	11	758
Textile trades.....	10	1,678	13	1,983	11	1,746
Theatrical employees and actors.....	7	1,092	9	2,011	9	2,168
Woodwork.....	16	1,736	16	1,703	20	2,023
Miscellaneous trades.....	22	3,887	33	4,523	47	5,865
Total.....	860	157,197	927	180,231	962	170,296

In 1894 the total membership of 860 labor organizations was 157,197. In 1895, 927 organizations reporting had 180,231 members, an increase of 23,034. In 1896 there was a falling off in membership, 962 organizations reporting 170,296 members. Unions in 9 general industries report a total decrease in membership of 23,136 during the year 1896. This was greatest in the clothing industry, which lost 19,970 members. The others that show losses were: Furniture workers, 342; glass workers, 259; hat, cap, and fur workers, 1,395; leather workers, 186; marine trades, 90; musicians and musical instrument makers, 603; street-paving employees, 54, and textile trades, 237. Organizations in 13 industries report a total gain of 11,859 members for 1896, as follows: Building trades, 2,441; cigar, cigarette, and tobacco workers, 710; coach drivers and livery stable employees, 2,953; food products, 43; hotel, restaurant, and park employees, 61; iron and steel, 1,346; malt liquors and mineral waters, 900; metal workers, 476; printing, binding, etc., 1,652; steam railroads, 407; stone, 389; theatrical employees and actors, 157, and woodwork, 324. The gain in miscellaneous trades was 1,342.

PRICES OF COMMODITIES.—Detailed tables are given showing the retail prices of groceries and meats for each year from 1891 to 1895, inclusive, as obtained from retailers in various cities in the State.



**GAS AND ELECTRIC LIGHTING.**—Detailed tables are given for each of the years 1891 to 1895, inclusive, showing by counties for the gas and electric light and power companies the number of employees and wages, and for each company, by occupation and locality, the highest, lowest, and average daily wages, and average hours of labor per week.

The following table shows, for the electric light and power and gas companies reporting as doing business for five years, the volume of business done, the earnings, and the total wages paid, for the five years ending June 1, 1895:

BUSINESS TRANSACTED BY ELECTRIC LIGHT AND POWER AND GAS COMPANIES  
FOR THE FIVE YEARS ENDING JUNE 1, 1895.

Items.	Electric light and power com- panies.	Gas companies.	Electric light and gas com- panies.
Number of companies reporting .....	8	21	6
Cost of stock or materials used, including all items of expense except wages .....	\$2, 396, 674. 72	\$6, 733, 636. 63	\$612, 695. 92
Total cost of production .....	\$4, 138, 077. 12	\$9, 130, 304. 39	\$938, 501. 60
Market value of manufactured materials .....	\$7, 624, 090. 69	\$19, 045, 241. 67	\$2, 654, 904. 17
Total wages paid .....	\$1, 741, 402. 40	\$2, 396, 667. 76	\$325, 805. 68
Percentage of total cost of production .....	42. 08	26. 24	34. 71
Earnings of companies .....	\$3, 486, 013. 57	\$9, 914, 937. 28	\$1, 716, 402. 57
Percentage of total cost of production .....	84. 24	108. 59	182. 88

In addition to the statistics given in the above table, the annual report also shows returns from companies for periods of less than five years.

**UNORGANIZED WORKINGWOMEN.**—This part of the report consists of a collection of personal statements made by working women and girls, with reference to the conditions of labor, wages, hours, treatment by employers, etc.

**FREE EMPLOYMENT BUREAU.**—This bureau was opened July 20, 1896. From that time until January 1, 1897, 8,040 applications for work were registered, of which 6,458 were from males and 1,582 from females. Of the male applicants, 1,758, and of the females, 233, had children depending upon them for support. Situations were secured for 218 males and 265 females.

### WEST VIRGINIA.

*Report of the Commissioner of Labor of the State of West Virginia, 1895-1896.* John M. Sydenstricker, Commissioner. 125 pp.

This is the second biennial report of the commissioner of labor of West Virginia. The following subjects are treated of in the report: Coal statistics, 45 pages; coke statistics, 34 pages; oil statistics, 24 pages; strikes, 1 page; statistics of agriculture, 8 pages. The information relating to coal, coke, and oil, and the strike statistics, are reproductions of data published in the reports of the Director of the United States Geological Survey and of the Commissioner of the United States Department of Labor.



## WISCONSIN.

*Seventh Biennial Report of the Bureau of Labor, Census, and Industrial Statistics.* State of Wisconsin, 1895-1896. Halford Erickson, Commissioner. viii, 540 pp.

This report treats of the following subjects: Farmers' returns, 175 pages; mechanics' and workingmen's returns, 160 pages; wages and time in operation, 35 pages; factory inspection, 21 pages; manufacturers' returns, 110 pages; building and loan associations, 35 pages.

**FARMERS' RETURNS.**—In response to inquiries addressed to farmers throughout the State, 549 returns were received. This is scarcely 10 per cent of the number solicited. The schedule of inquiries contained over 40 items, covering the social and industrial condition of farmers in the State. The following is a résumé of some of the answers returned by the farmers:

Native born .....	354
Foreign born .....	176
Not reporting place of birth .....	19
Married .....	517
Single .....	32
Average number of persons in 500 families .....	5.6
Average months per year of school attendance of children .....	7.5
Average number of years engaged in farming .....	25.6
Average number of acres per farm (546 farms) .....	209.3
Average number of acres per farm under cultivation (544 farms) .....	134.5
Average value of land and improvements per acre (532 farms) .....	\$47.93
Number of farm hands employed in summer (409 farms) .....	678
Average monthly wages in summer .....	<sup>a</sup> \$17.20
Number of farm hands employed in winter (270 farms) .....	346
Average monthly wages in winter .....	<sup>a</sup> \$12.30
Members of farmers' associations .....	19
Not members of farmers' associations .....	514
Not reporting as to membership of farmers' associations .....	16
Members of beneficiary associations .....	111
Not members of beneficiary associations .....	412
Not reporting as to membership of beneficiary associations .....	26
Carry life insurance .....	163
Do not carry life insurance .....	364
Not reporting as to life insurance .....	22

The number of answers returned varies in the different items, because not all the schedules returned were complete. According to the returns received there seems to be an improvement in the condition of farmers. Of 518 farmers reporting, 431 say that they have saved money during the past five years. Among unmarried laborers there seems to be a prevailing tendency to go to the cities rather than to remain and acquire the ownership of farms, 240 out of 320 farmers reporting to that effect. Domestic help is reported by 395 out of 457 farmers to be scarce. The reasons assigned are that girls prefer other employment and they prefer

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<sup>a</sup> In over 90 per cent of cases this includes board and washing.

to work in cities. With regard to the cost of living, 64 farmers report an increase, 104 a decrease, and 230 no change during the past year.

Other chapters of farmers' returns relate to the production and prices of grain and other farm produce and to farm animals.

**MECHANICS' AND WORKINGMEN'S RETURNS.**—Over 15,000 schedules of inquiry, covering the social and industrial condition of workingmen, were sent out by the bureau. Only 1,488 returns were received that could be used for tabulation, and these were not all complete. The individual returns were tabulated by industries and the general results summarized. The following table gives a summary of some of the returns, arranged according to occupations:

STATISTICS OF MECHANICS AND WORKINGMEN, BY OCCUPATIONS, 1895.

Occupations.	Average age.	Average persons supported.	Average hours of labor.		Average months employed during year.	Average daily wages.	Per cent reporting part of wages withheld.	Per cent owning homes.	Average value of homes.	Per cent reporting homes mortgaged.	Per cent carrying life insurance.
			Summer.	Winter.							
Blacksmiths ...	35.9	4.5	10.0	8.9	10.4	\$1.85	51.4	54.2	\$1,879	65.4	45.8
Boiler makers ..	33.4	3.5	10.0	9.1	11.1	2.66	85.7	71.4	2,250	(a)	71.4
Bookbinders ...	35.3	3.6	10.0	10.0	11.1	2.54	.....	50.0	4,833	65.7	40.0
Brewery workers .....	35.5	4.5	10.0	9.4	10.2	2.16	16.7	35.2	2,420	83.3	48.4
Cabinetmakers ..	33.6	4.1	10.0	8.1	9.6	1.58	74.0	43.6	1,458	76.5	27.6
Carpenters .....	37.9	4.2	10.0	8.8	10.0	1.76	46.6	58.9	1,611	58.9	49.5
Cigar makers ..	33.5	3.8	7.8	7.8	8.3	1.55	.....	21.6	2,212	62.6	51.3
Coopers .....	37.2	3.9	9.6	9.0	8.6	1.49	7.3	22.5	2,488	66.6	20.0
Engineers .....	35.9	3.7	11.2	9.7	10.9	2.05	45.2	42.8	2,133	55.5	61.8
Factory operatives .....	32.4	4.6	10.0	8.8	9.2	1.14	60.6	33.7	1,420	80.0	19.1
Firemen .....	32.3	4.6	11.9	9.6	10.5	1.68	100.0	25.0	1,566	100.0	25.0
Machine hands ..	33.5	4.2	10.1	8.0	9.8	1.50	62.5	44.2	1,539	81.4	36.0
Machine wood workers .....	32.7	3.9	10.0	8.3	9.7	1.39	67.1	30.7	1,396	66.6	26.9
Machinists .....	36.2	3.6	9.9	9.1	10.8	2.39	64.8	45.9	2,311	50.0	56.1
Masons and bricklayers ..	34.7	4.9	9.1	8.3	6.3	2.71	92.3	52.9	2,055	33.3	47.0
Matress makers .....	31.3	3.2	9.1	5.2	10.5	1.35	.....	16.6	2,750	33.3	(a)
Millwrights ....	42.0	4.1	10.1	8.5	10.9	2.26	33.3	83.3	1,945	60.0	66.6
Molders, brass and iron .....	32.0	5.0	10.0	9.0	9.0	2.16	55.3	33.3	1,294	58.8	45.4
Painters .....	36.0	4.0	10.0	9.0	10.0	1.74	80.0	35.1	1,369	63.1	33.3
Paper makers ..	31.9	3.6	11.0	11.0	10.6	2.08	44.4	25.0	1,233	33.3	50.0
Plumbers and steam fitters ..	26.8	3.5	10.0	9.0	9.5	2.07	20.0	42.8	1,366	33.3	42.8
Printers .....	35.4	2.9	9.1	9.1	11.0	2.66	.....	43.7	1,878	14.2	35.2
Shoemakers ....	32.5	3.4	10.0	8.4	8.9	1.65	27.2	30.5	2,527	27.7	39.5
Tailors .....	33.7	3.0	10.0	9.5	8.8	1.86	12.5	62.5	1,715	60.0	27.2
Tanners and curriers .....	35.4	4.3	10.0	8.9	10.4	1.62	34.0	39.1	1,514	83.3	41.0
Teamsters .....	35.1	4.8	10.0	9.5	11.2	1.63	30.0	36.4	950	50.0	30.7
Tinsmiths .....	28.5	2.4	10.0	10.0	10.6	2.06	66.6	20.0	800	100.0	83.3
Tobacconists ...	29.7	4.5	8.0	8.0	10.2	1.87	.....	25.0	1,500	100.0	50.0
Unskilled labor ..	36.9	4.8	10.7	8.1	8.9	1.21	56.1	39.4	920	68.6	16.0
Upholsterers ..	36.0	4.6	10.0	8.2	11.5	2.06	.....	16.6	6,000	100.0	100.0
Wagon makers ..	41.2	4.7	10.0	8.2	9.2	1.88	25.0	58.3	1,371	28.5	41.6
Miscellaneous ..	32.7	4.1	10.0	9.0	10.7	2.87	33.5	50.7	2,530	59.4	63.5

a Not reported.

The number of persons considered in each case is not shown in this summary. As the schedules were not all complete, the number of persons probably varies with the different items returned. The average age of the workingmen for each occupation ranges from 26.8 to 42 years and the average number of persons supported varies from 2.4 to 5 for



the different occupations. The average time employed during the day was mostly from 9 to 10 hours in summer and from 8 to 9 hours in winter. The most steady employment was in the case of upholsterers, who worked 11.5 months during the year, and the least in the case of masons and bricklayers, who worked but 6.3 months. Factory employees were paid the lowest average daily wages, namely, \$1.14, and masons and bricklayers received the highest, \$2.71. A large proportion of the workingmen own their homes, most of which are mortgaged. The following table shows the principal items of 423 workingmen's budgets, arranged by occupations:

YEARLY INCOME AND EXPENDITURE PER FAMILY OF MECHANICS AND WORKINGMEN, BY OCCUPATIONS, 1895.

Occupations.	Families reporting.	Average persons to a family.	Average yearly income per family.	Average yearly expenditure per family.					
				Subsistence.	Clothing.	Fuel.	Rent.	Sundries.	Total.
Blacksmiths .....	17	4.5	\$476.82	\$223.41	\$72.82	\$29.40	\$85.81	\$81.31	\$492.75
Boiler makers .....	4	3.5	577.75	269.00	59.25	29.50	102.00	81.50	541.25
Brewery workers .....	16	4.4	629.56	266.12	79.91	36.25	109.86	131.50	614.64
Cabinetmakers .....	12	3.6	505.57	216.16	70.67	32.75	77.75	111.67	509.00
Carpenters .....	36	4.3	435.00	182.75	59.61	28.06	75.39	82.31	428.12
Cigar makers .....	14	4.0	451.06	238.14	64.92	30.50	88.74	82.23	504.58
Coopers .....	15	4.7	418.88	235.40	62.33	28.86	81.00	87.06	494.65
Engineers, stationary .....	16	3.7	755.05	285.00	96.69	37.56	106.37	132.81	658.43
Factory operatives .....	29	3.7	290.03	155.22	37.25	21.67	50.99	41.94	307.07
Firemen, stationary .....	6	5.2	463.49	202.00	67.50	40.50	73.00	74.83	457.83
Machine hands .....	14	3.4	456.79	182.79	63.57	25.05	80.28	50.41	407.10
Machine wood workers .....	25	4.3	390.07	190.80	59.33	23.74	72.56	48.24	394.67
Machinists .....	33	4.2	739.85	287.19	89.03	39.84	123.33	129.01	668.40
Masons and bricklayers .....	3	5.7	548.34	313.34	86.00	37.66	76.00	69.00	582.00
Mattress makers .....	2	3.0	336.00	200.00	45.00	22.00	48.00	21.00	336.00
Millwrights .....	2	6.0	685.00	240.00	107.50	37.50	102.00	73.00	569.00
Molders .....	28	4.8	570.09	258.44	78.13	30.59	84.78	70.66	517.60
Painters .....	25	4.0	430.01	208.44	70.22	28.08	71.52	50.94	429.20
Paper makers .....	5	4.0	765.00	348.00	72.00	54.00	103.00	69.00	651.00
Plumbers and steam fitters .....	2	3.5	505.09	247.00	117.50	27.50	120.00	72.00	584.00
Printers .....	6	3.6	721.66	275.00	86.66	40.00	108.00	142.16	651.82
Shoemakers .....	21	3.2	449.18	210.95	47.62	30.67	83.33	67.76	440.33
Tailors .....	3	3.0	616.00	166.66	48.00	45.66	84.00	52.34	396.66
Tanners and curriers .....	24	4.2	501.00	234.22	80.75	35.55	80.70	65.50	496.72
Teamsters .....	6	4.8	627.00	251.66	65.50	23.87	90.33	136.80	568.16
Tinsmiths .....	4	3.5	607.75	236.50	82.25	29.50	93.00	113.00	554.25
Tobaccoists .....	2	3.5	565.00	241.00	45.00	30.00	117.00	132.00	565.00
Unskilled laborers .....	44	4.9	352.32	176.59	48.11	27.02	64.03	46.66	362.41
Upholsterers .....	4	4.5	703.50	275.50	101.20	32.00	110.00	155.80	674.50
Wagon makers .....	5	4.4	505.20	199.00	68.00	45.00	98.40	86.80	497.20
All occupations .....	423	4.2	535.66	233.93	71.27	32.67	88.57	85.00	511.44

The average income during the year for a family of 4.2 persons was \$535.66. The average cost of supporting such a family in one year is shown to be: For subsistence, \$233.93; for clothing, \$71.27; for fuel, \$32.67; for rent, \$88.57; for sundries, \$85, or a total of \$511.44. The per cent of each item of the total expenditure was as follows: Subsistence, 46.17; clothing, 13.88; fuel, 6.48; rent, 17.37; sundries, 16.10.

WAGES AND TIME IN OPERATION.—In this chapter are shown the average wages of workingmen for the years 1888 to 1895, inclusive, arranged by years and occupations, and the wage scales for 61 industries in 1894 and 1895.



The following table shows, for 62 industries, the number of establishments reported each year in the State from 1888 to 1895, the number of men employed in the establishments, the wages paid, and the number of weeks of employment during the year:

ESTABLISHMENTS REPORTING, EMPLOYEES, WAGES PAID, AND AVERAGE WEEKS OF EMPLOYMENT, 1888 TO 1895.

Year.	Estab- lishments reporting.	Men employed.		Wages paid.			Average weeks of employ- ment.
		Total.	Average per estab- lishment.	Total.	Average per year.	Average per day.	
1888 .....	1, 135	71, 218	62. 7	\$28, 416, 694	\$399. 01	\$1. 44	46. 4
1889 .....	1, 272	80, 504	63. 3	32, 575, 944	404. 65	1. 45	46. 8
1890 .....	1, 364	80, 880	59. 3	33, 125, 213	409. 56	1. 43	48. 0
1891 .....	1, 336	94, 089	70. 4	38, 023, 247	404. 12	1. 44	46. 9
1892 .....	1, 331	90, 936	68. 3	38, 295, 878	421. 13	1. 46	48. 0
1893 .....	1, 610	96, 540	60. 0	37, 327, 810	386. 66	1. 42	45. 0
1894 .....	1, 460	83, 642	57. 3	31, 409, 244	375. 52	1. 38	45. 4
1895 .....	1, 368	85, 767	62. 7	32, 993, 707	384. 69	1. 37	46. 5

**BUILDING AND LOAN ASSOCIATIONS.**—Tables are presented showing the number of shareholders, shares in force, borrowers, amounts borrowed, assets, profits and losses, and other items concerning building and loan associations. Following is a summary of some of the more important data presented for the fiscal year 1895:

Number of associations reported:

Serial .....	26
Permanent .....	18
Terminating .....	5
Total .....	49
Number of shareholders .....	10, 173
Number of shares in force at end of year .....	84, 165
Amount loaned to members during the year .....	\$815, 567
Withdrawals and matured shares paid during the year .....	\$634, 312
Total loans to shareholders in force at end of year .....	\$3, 174, 977
Total assets at end of year .....	\$3, 495, 676

**MANUFACTURERS' RETURNS.**—Reports were received from 1,368 establishments, representing 47 industries. Most of the results of this investigation are published in percentages only in order to avoid the identification of the establishments. The tables presented in the report show for each industry, and for all industries collectively, the proportion which each item bears to the whole with respect to the cost of production, selling price, capital and product, capital invested, partners or stockholders and wage earners, and gross profits, respectively. They also show absolute figures giving the average investment and net earnings of each partner or stockholder, and the average product and average earnings of each worker.



The following table shows the proportionate cost of materials and supplies, labor, and other factors of the total cost of production for each industry and for all industries combined:

PERCENTAGE OF COST OF MATERIALS AND SUPPLIES, LABOR, AND OTHER FACTORS OF TOTAL COST OF PRODUCTION, BY INDUSTRIES.

Industries.	Percentage of total cost.			Industries.	Percentage of total cost.		
	Materials and supplies.	Labor.	Other factors.		Materials and supplies.	Labor.	Other factors.
Agricultural implements and machinery.	60.18	26.00	13.82	Mattresses and bedding	70.64	20.73	8.63
Beer and malt.	59.90	13.44	26.66	Paints, oils, and grease.	82.18	8.25	9.57
Boiler works.	54.78	33.79	11.43	Paper and pulp.	61.21	22.22	16.57
Boots and shoes.	65.64	22.73	11.63	Refrigerators.	43.18	38.30	18.52
Boxes, packing.	63.25	24.30	12.45	Saddlery, harness, etc.	62.13	23.66	14.16
Boxes, paper and cigar.	66.91	23.05	10.04	Sash, doors, and blinds.	65.77	24.34	9.89
Brass goods.	52.64	33.64	13.72	Sewer pipe and cement	53.65	22.70	23.65
Brick and drain tile.	37.85	44.33	17.82	Shipbuilding.	44.05	46.49	9.46
Chairs and chair stock.	52.23	37.17	10.60	Soap, lye, and potash.	65.29	24.73	9.93
Cigars.	58.46	30.33	11.21	Staves and headings.	56.55	30.96	12.49
Cloaks and clothing.	66.40	22.36	11.24	Stone, marble, granite, etc.	42.71	38.47	18.82
Confectioneries and steam bakeries.	68.49	15.55	15.96	Stoves, ranges, and furnaces.	59.54	30.34	10.12
Cooperage.	63.57	30.54	5.89	Tanners and curriers.	73.26	14.51	7.23
Cotton and linen mills.	59.27	30.39	10.34	Tinware and sheet-iron goods.	56.41	33.83	9.76
Electrical and gas-fitting supplies.	64.33	22.28	13.39	Tobacco.	78.21	14.78	7.01
Excelsior.	57.83	26.26	15.91	Trunks, valises, etc.	60.43	27.77	11.80
Flour and feed.	92.78	3.13	4.09	Veneer.	50.99	34.90	14.11
Furniture.	59.14	29.91	10.95	Vinegar.	65.13	21.85	13.02
Furs, gloves, and mittens.	71.55	20.57	7.88	Wagons, carriages, and sleighs.	59.69	23.02	12.29
Hardware specialties.	59.44	31.01	9.55	Willow ware and toys.	59.04	31.75	9.21
Iron works, malleable.	48.62	39.29	12.09	Wooden ware.	64.55	27.08	8.37
Knit goods.	65.78	22.83	11.39	Woodwork.	49.57	40.50	9.93
Lumber, laths, and shingles.	60.57	24.41	15.02	Woolen and worsted mills.	62.97	22.68	14.35
Machine shops and foundries.	55.86	33.62	10.52	All industries.	61.80	26.01	12.19

## RECENT FOREIGN STATISTICAL PUBLICATIONS.

### BELGIUM.

*Bulletin de la Commission Centrale de Statistique.* Volume XVII. Années 1890 à 1896. Ministère de l'Intérieur et de l'Instruction Publique, Administration de la Statistique Générale. 1897. xxxiii, 1186 pp.

A considerable part of this work is taken up with the membership of the central and provincial statistical commissions and the proceedings of the central commission. In the line of statistical studies are two articles concerning population, with special reference to movements of the population and to medical and mortality statistics. These need not here be discussed. An article of more particular interest for present purposes is "Workingmen's wages and budgets in 1853 and 1891," by Edm. Nicolai, to which 19 pages are given in this work. A brief summary of this article follows.

Several years ago an inquiry on workingmen's wages and cost of living was made under the auspices of the ministry of agriculture, industry, and public works. The work of obtaining the desired information was assigned to the councils of industry and labor. Besides facts regarding average daily wages, information was also called for concerning the composition of the workingman's family, age of each member, number of children, etc.; the general resources of each family; expenditures for food and quantity consumed; other material expenditures, especially such as relate to habitation, clothing, fuel, etc.; retail prices of food commodities; expenditures for religious, moral, and intellectual purposes, and expenditures for luxuries. In order to facilitate the work the inquiry was made to cover but one month, April, 1891. The results in detail were published in 1892. The object of the present study was to recapitulate the detailed information and to summarize the official data.

The inquiry covered 188 workingmen's families, including 800 children. The average number of children per family is thus 4.25, making with the father and mother an average family of 6.25 persons. The census of 1890 shows that for the population in general there were 456 persons per 100 families.

The families covered by this investigation were represented, with regard to the number of children, as follows: One child, 1 family; 2 children, 6 families; 3 children, 19 families; 4 children, 118 families; 5 children, 22 families; 6 children, 13 families; 7 children, 4 families; 8 children, 4 families; 10 children, 1 family.



The fathers of families considered had an average age of 42 years. The average age of mothers was 40 years. The averages of all married males and females, according to the population census of 1890, were 44 and 42 years, respectively. The average age of children earning wages was 16 years for both boys and girls. The average age of other children was 8 years and 4 months.

Of the wage-earning children 187 were males and 45 females. There were thus 568 children, or 71 per cent of the entire number, not at work. With regard to the mothers, there were only 16, or 8.5 per cent, who, independently of their duties as housewives, had occupations as wage-earners.

The resources of the families, which represent the fruits of labor during the month of April, 1891, amounted to 26,965 francs (\$5,204.25) for 178 families. The contributions of the fathers, mothers, and children to this wage product were as follows: Fathers' earnings, 18,795 francs (\$3,627.44), or 69.70 per cent; mothers' earnings, 327 francs (\$63.11), or 1.21 per cent; male children's earnings, 6,919 francs (\$1,335.37), or 25.66 per cent; female children's earnings, 924 francs (\$178.33), or 3.43 per cent.

The earnings for the month per family were, on an average, 151.49 francs (\$29.24), to which may be added 2.12 francs (\$0.41) received by the head of the family for extra work and in the form of subsidies from employers.

With regard to the daily wages, the statistics examined furnish the following: Average daily wages of fathers, 4.10 francs (\$0.79); mothers, 1.15 francs (\$0.22); boys, 1.45 francs (\$0.28); girls, 0.82 francs (\$0.16).

The industrial census taken in 1880 furnishes the following information regarding average wages in the principal industries: Working people over 16 years of age, 3.13 francs (\$0.60); from 14 to 16 years of age, 1.80 francs (\$0.35); under 14 years of age, 1.21 francs (\$0.23).

This rate of pay for a day's labor of an adult agrees fairly well with the data secured by the inquiry of 1891. The average of 3.13 francs (\$0.60) corresponds exactly with the wages in 1891 of men from 19 to 21 years of age. A comparison of other figures seemed to indicate a reduction since 1880 in the rates per day of working people under 16 years of age.

If in the comparison we go back to the year 1846 an entirely different result is found. The average daily wages of that period were as follows: Men, 1.49 francs (\$0.29); women, 0.71 francs (\$0.14); boys, 0.54 francs (\$0.10); girls, 0.39 francs (\$0.08).

It is thus shown, by comparing these figures with those for 1880 and 1891, that wages have more than doubled in 40 years.

With regard to the hours of labor, the inquiry of 1891 showed an average daily duration of 10 hours and 24 minutes. This is a diminution since the census of 1880. According to that enumeration the duration was 10 hours and 53 minutes, or 29 minutes more.



The family expenditures have been divided into two principal classes:

1. Expenditures of a material nature.
2. Expenditures for religious, moral, and intellectual purposes, and for luxuries.

The first class comprises two categories: First, expenditures for food; second, expenditures for habitation, furniture, clothing, etc.

Of the total monthly expenditures, amounting to 30,379 francs (\$5,863), the expenditures of a material nature were 28,139 francs (\$5,431), or 93 per cent. The expenditures of the second class amounted to 2,240 francs (\$432), of which 1,600 francs (\$309) were for luxuries and 640 francs (\$123) for religious, moral, and intellectual purposes. The last category, therefore, represents 2 per cent and the preceding category 5 per cent of the total expenditures.

Regarding expenditures of a material nature, we may say that the 93 per cent of the total expenditures for this purpose consist of 62 per cent expended for food and 31 per cent for habitation, clothing, etc. In absolute figures, 18,641 francs (\$3,598) were expended for food and 9,498 francs (\$1,833) for habitation, furniture, clothing, etc. It will be seen, therefore, that the bulk of the expenditures was for the necessities of life.

The following table shows for each article of food considered in the inquiry the quantity consumed in one month by the family, which consists of an average of 6.25 persons, the expenses incurred by the purchase of these articles, and the average cost per unit of each:

QUANTITY AND COST OF FOOD CONSUMED IN ONE MONTH BY A FAMILY  
AVERAGING 6.25 PERSONS.

Articles of food.	Quantity.	Cost.	Average cost per unit.
Wheat bread .....	169.76 pounds.	\$4. 856	\$0. 029
Mixed (wheat and rye) bread .....	33.80 pounds.	. 892	. 026
Rye bread .....	3.44 pounds.	. 042	. 012
Potatoes .....	189.24 pounds.	2. 268	. 012
Vegetables .....	(a)	. 459	(a)
Beef .....	b19.20 pounds.	b3. 034	b. 158
Pork .....	(c)	(c)	(c)
Bacon .....	3.92 pounds.	. 583	. 149
Lard and grease .....	2.89 pounds.	. 326	. 113
Eggs .....	2.67 dozen ..	. 465	. 174
Milk .....	18.30 quarts..	. 704	. 038
Cheese .....	1.48 pounds.	. 216	. 146
Butter .....	11.90 pounds.	2. 992	. 251
Coffee .....	4.23 pounds.	1. 116	. 264
Chicory .....	4.01 pounds.	. 183	. 046
Sugar .....	1.87 pounds.	. 208	. 111
Beer .....	19.40 quarts..	. 728	. 038
Distilled liquors .....	.07 quart...	. 017	. 243
Groceries, etc .....	(a)	. 064	(a)

a Not reported.

b Including pork.

c Included in beef.

It will be of some interest to bring together certain elements contained in the preceding table to ascertain the annual consumption of food by an adult workingman. By estimating the food consumption of children of tender age on the basis of two children for one adult, the comparison following of 1891 with 1853 can be made.



## ANNUAL CONSUMPTION OF FOOD BY AN ADULT WORKINGMAN, 1853 AND 1891.

Articles of food.	Pounds of food consumed by an adult workingman in—	
	1853.	1891.
Bread.....	465.17	582.90
Potatoes.....	687.84	533.52
Meat and bacon.....	21.16	65.26
Butter, lard, etc.....	19.84	41.78
Coffee.....	11.02	11.95

This comparison seems to indicate that the nourishment of the workingman of 1891 is more substantial and more abundant than that of the wage-worker of 1853. The consumption of but one article, the potato, has diminished. The consumption of butter, lard, etc., has doubled, the use of meat and bacon has more than tripled, and coffee has been used in about the same proportion. As regards bread, it is shown that 117.73 additional pounds actually entered into the annual food of a workingman. Besides this, a great change is noticed in the quality of the bread. Formerly rye bread constituted 47 per cent of the total weight of bread consumed, wheat bread 31 per cent, and mixed rye and wheat bread 22 per cent. At the present time the use of rye bread has almost been discontinued, and wheat bread has replaced it on the workingman's table. This is illustrated in the following statement of the proportionate parts of the various breads which enter into the popular food:

## KINDS OF BREAD CONSUMED BY A WORKINGMAN AND PROPORTION OF EACH, 1853 AND 1891.

Kinds of bread.	1853 (percent).	1891 (percent).
Wheat.....	31	82
Mixed (wheat and rye).....	22	16
Rye.....	47	2

If the general table of expenditures for food be analyzed six classes may be formed, namely: Bread; potatoes and other vegetables; beef, pork, bacon, lard, etc.; eggs, milk, cheese, and butter; coffee, chicory, sugar, and groceries, and beer and distilled liquors. On the basis of this classification the following distribution of the monthly expenditures of 187 workingmen's families is obtained:

## MONTHLY EXPENDITURES FOR FOOD OF 187 WORKINGMEN'S FAMILIES.

Classes of food.	Expendi- ture.	Per cent of total.
Bread.....	\$1,084.47	30
Potatoes and other vegetables.....	509.52	14
Beef, pork, bacon, lard, etc.....	738.23	21
Eggs, milk, cheese, and butter.....	822.76	23
Coffee, chicory, sugar, and groceries.....	289.31	8
Beer and distilled liquors.....	138.77	4
Total.....	3,583.06	100

Bread is the most important item of expenditure, constituting almost one-third of the food budget. Next follow eggs and dairy products, which amount to nearly one-fourth of the total expenditure.

As regards the prices of articles of food, the following table makes possible a comparison between 1854 and 1891:

PRICES OF ARTICLES OF FOOD, 1854 AND 1891.

Articles of food.	Price per pound.	
	1854.	1891.
Wheat bread .....	\$0.038	\$0.029
Rye bread .....	.025	.012
Potatoes.....	.011	.012
Meat .....	.088	.158
Milk.....	a .022	a .038
Butter.....	.153	.251
Coffee.....	.175	.264
Beer.....	a .024	a .038

a Per quart.

The above figures show that, with the exception of wheat and rye bread, all the food products cited have advanced in price. This advance was considerable except in the case of potatoes, of which the change in price was very slight.

The following table summarizes the average monthly expenditures for habitation, clothing, and other articles of a material nature, and shows the relative importance of each item:

EXPENDITURES FOR HABITATION, FURNITURE, CLOTHING, ETC., IN ONE MONTH BY A FAMILY AVERAGING 6.25 PERSONS.

Objects of expenditure.	Amount per month.	Per cent of total.
Rent.....	\$2.625	26.9
Repairs, etc., to dwelling.....	.214	2.2
Furniture .....	.210	2.1
Garden culture.....	.077	.8
Taxes.....	.046	.5
Fuel.....	1.353	13.9
Light.....	.266	2.7
Clothing for father.....	1.017	a 35.1
Clothing for mother.....	.600	
Clothing for children.....	1.806	
Bedding and bed linens.....	.477	4.9
Washing (laundrying) .....	.565	5.8
Expenses for hygienic purposes .....	.131	1.3
Expenses for sickness.....	.239	2.4
Expenses incidental to the trade.....	.135	1.4
Total.....	9.761	100.0

a Percentage for entire family.

There are three important items in this presentation, namely, rent, fuel, and clothing. Their relative importance is shown by the percentages, 26.9, 13.9, and 35.1, respectively, which enter into the second category of expenditures. The expenditures for these purposes thus absorb three-fourths of the amount carried in the table.



The small importance of expenditures for religious, moral, and intellectual purposes has already been shown. They represent only 2 per cent of the total budget. The same condition was shown in 1853. The proportions are identical. In the following statement are shown the details of expenditures of this category for one month:

Religion.....	\$0. 048
School expenses for children.....	. 112
Books, papers, engravings, etc.....	. 095
Subscriptions for religious, moral, or intellectual purposes.....	. 021
Mutual aid societies.....	. 145
Provident associations.....	. 079
Pension funds.....	. 027
Savings associations.....	. 069
Savings banks.....	. 054
Total.....	. 650

Following are the statistics regarding the monthly expenditures for luxuries:

Beer and liquors consumed at cafés.....	\$1. 243
Tobacco.....	. 268
Losses at play (ninepins, ball, etc.).....	. 050
Personal ornaments.....	. 064
Local and public festivals.....	. 064
Pawn-shop loans and deposits.....	. 010
Total.....	1. 699

There was a slight increase in these expenditures when compared with those for 1853. The percentage of this category of the total budget has increased from 4 per cent, forty years ago, to 5 per cent. The expenses incurred in the cafés and grogshops constitute the main part, both of the increase noted and of the actual total of this category of expenses. If to the grogshop expenditures we add those for tobacco, we have the only two items of this category which merit any attention.

In 1853 the frequenting of cafés and grogshops and the consumption of fermented and distilled drinks absorbed 2.48 per cent of the workingmen's budget. According to recent statistics this proportion was increased to 4 per cent. The actual monthly expenditures for purposes of this kind, which in 1891 amounted to 6.44 francs (\$1.24), were only 4.20 francs (\$0.81) in 1853, or 2.24 francs (\$0.43) less.

## GREAT BRITAIN.

*Report on the Strikes and Lockouts of 1896 in Great Britain and Ireland.* 1897. lxxi, 209 pp. (Published by the Labor Department of the British Board of Trade.)

This is the ninth annual report on strikes and lockouts in the United Kingdom, prepared by the chief labor correspondent of the Labor Department of the Board of Trade. The greater part of the volume

is devoted to tables showing for each dispute the occupations and the number of working people and establishments affected, the cause or object of the dispute, and the duration and result. These tables are preceded by an analysis of the statistics of strikes and lockouts, summary tables, and a comparison of strikes and lockouts in recent years. Space is also given to reports on the settlement of disputes by conciliation and arbitration, and returns received from trade unions on the state of the labor market.

**STRIKES AND LOCKOUTS.**—The report shows a marked falling off in the extent and importance of trade disputes in 1896, as compared with the four preceding years. This is shown in the following table:

STATISTICS OF STRIKES AND LOCKOUTS, 1892 TO 1896.

[Persons affected means persons thrown out of work.]

Year.	Strikes and lockouts.	Persons affected.	Aggregate working days lost. (a)	Result (per cent).		
				In favor of employees.	In favor of employers.	Compromised, indefinite, or unsettled.
1892.....	700	356,799	17,381,936	27.5	19.9	52.6
1893.....	783	636,386	31,205,062	62.9	12.1	25.0
1894.....	1,061	324,245	9,322,096	22.1	42.1	35.8
1895.....	876	263,758	5,542,652	24.1	27.9	48.0
1896.....	1,021	198,687	3,748,525	39.5	33.4	27.1

*a* The aggregate days shown for 1896 is strictly the number of days lost through disputes in that year up to December 31, including the days lost in 1896 by disputes commencing in 1895, but excluding days lost in 1897 by disputes commencing in 1896. In each of the previous years the figures shown are the number of days lost by disputes commencing in those years, and including the days lost by disputes extending beyond the year of commencement. The comparison is not materially affected by the change in method.

While the number of disputes was greater in 1896 than in any of the four preceding years except 1894, the number of persons affected and the aggregate working days lost were much smaller than during any other year of the period. The maximum number of persons affected in any one year was 636,386 in 1893, the year of a general strike of coal mine employees. Since 1893 this number has declined year by year, the figures being 324,245 in 1894, 263,758 in 1895, and 198,687 in 1896. If the number of working days lost be taken as the measure of importance of disputes, a similar result is shown. The maximum loss was in 1893, when it was estimated at 31,205,062 days. In 1894 the loss was 9,322,096, in 1895, 5,542,652, and in 1896, 3,748,525 days.

The proportion of working people involved in disputes which were settled in their favor was greater in 1896 than in any of the previous years except 1893, when this percentage was largely affected by the result of the great coal strike.

The table following shows the number of working people affected by strikes and lockouts, classified according to trades, from 1892 to 1896.



PERSONS AFFECTED BY STRIKES AND LOCKOUTS, BY INDUSTRIES, 1892 TO 1896.

[Persons affected means persons thrown out of work.]

Industries.	Persons affected by strikes and lockouts.				
	1892.	1893.	1894.	1895.	1896.
Building .....	15, 979	15, 348	13, 814	9, 216	33, 470
Mining and quarrying .....	120, 386	506, 182	216, 580	83, 879	67, 203
Metal, engineering, and shipbuilding.....	40, 121	30, 415	27, 974	46, 439	48, 210
Textile .....	103, 255	46, 041	40, 027	64, 297	33, 717
Clothing .....	35, 536	9, 948	5, 576	50, 071	4, 016
Transportation.....	12, 542	15, 557	11, 546	4, 263	3, 320
Miscellaneous .....	28, 002	12, 640	8, 167	5, 552	8, 211
Employees of public authorities .....	978	255	561	41	540
Total .....	356, 799	636, 386	324, 245	263, 753	198, 687

In each year disputes in the mining and quarrying industries have affected the largest number of persons. Next in magnitude were disputes in the textile, and in the metal, engineering, and shipbuilding trades. Disputes in the building trades were more important in 1896 than in any of the four preceding years.

The following table shows for each group of trades the number of strikes and lockouts, the number of persons affected classified according to results, and the aggregate number of days lost:

PERSONS AFFECTED BY STRIKES AND LOCKOUTS, BY INDUSTRIES AND RESULTS, AND WORKING DAYS LOST, 1896.

[Persons affected means persons thrown out of work.]

Industries.	Strikes and lockouts.	Persons affected by strikes and lockouts, the results of which were—				Total persons affected.	Aggregate working days lost.
		In favor of employees.	In favor of employers.	Compromised.	Indefinite or unsettled.		
Building .....	205	19, 621	10, 566	3, 283	.....	33, 470	1, 061, 207
Mining and quarrying.....	172	16, 993	22, 488	27, 722	.....	67, 203	1, 011, 126
Metal, engineering, and shipbuilding .....	281	24, 306	13, 637	10, 037	230	48, 210	863, 205
Textile .....	163	11, 287	14, 704	7, 673	53	33, 717	520, 371
Clothing .....	54	2, 232	543	1, 241	.....	4, 016	98, 894
Transportation.....	26	638	513	2, 169	.....	3, 320	23, 046
Miscellaneous .....	114	3, 101	3, 816	1, 294	.....	8, 211	169, 069
Employees of public authorities .....	6	308	53	179	.....	540	1, 607
Total .....	1, 021	78, 486	66, 320	53, 598	233	198, 687	3, 748, 525

In 1896, of the total number of working people affected by strikes and lockouts 67,203, or 33.8 per cent, were employed in mining and quarrying; 48,210, or 24.3 per cent, in the metal, engineering, and shipbuilding trades; 33,717, or 17.0 per cent, in the textile trades; and 33,470, or 16.8 per cent, in the building trades, leaving but 8.1 per cent affected by disputes in the remaining industries. Of the 1,021 strikes, 800 affected only single establishments.

The causes or objects of strikes and lockouts, the number of persons affected classified according to results, and the aggregate number of days lost are shown in the table following.

PERSONS AFFECTED BY STRIKES AND LOCKOUTS, BY CAUSES AND RESULTS, AND  
WORKING DAYS LOST, 1896.

[Persons affected means persons thrown out of work.]

Cause or object.	Strikes and lockouts.	Persons affected by strikes and lockouts, the results of which were—				Total persons affected.	Aggregate working days lost.
		In favor of employees.	In favor of employers.	Compromised.	Indefinite or unsettled.		
Wages .....	570	45,499	43,312	26,932	74	115,817	2,688,957
Hours of labor .....	26	1,541	1,662	455	.....	3,658	51,200
Working arrangements .....	164	12,905	7,353	12,863	.....	33,121	385,552
Employment of other classes of working people .....	53	2,295	2,713	2,326	144	7,478	70,545
Questions of unionism .....	103	8,762	1,840	1,429	.....	12,031	327,183
Against employment of particular persons (a) .....	11	221	126	3,347	.....	3,694	14,950
For reinstatement of discharged employees (a) .....	43	3,112	2,828	3,164	.....	9,104	61,806
Objection to action of officials .....	20	1,499	2,082	103	53	3,737	22,691
Sympathetic disputes .....	24	1,496	4,343	2,705	.....	8,544	101,684
Miscellaneous .....	7	1,156	61	274	12	1,503	23,957
Total .....	1,021	78,486	66,320	53,598	283	198,687	3,748,525

a Apart from unionism.

In 1896, 115,817, or 58.3 per cent, of the total number of persons affected by strikes and lockouts were engaged in wage disputes. Next in magnitude were disputes as to working arrangements, which accounted for 33,121, or 16.7 per cent, of all persons involved in strikes and lockouts. Questions of trade-unionism ranked third in importance, involving 12,031, or 6.1 per cent, of the total number.

As regards the results of strikes and lockouts, 78,486, or 39.5 per cent, of the working people obtained their demands; disputes affecting 53,598, or 27.0 per cent, were compromised, and disputes affecting 66,320, or 33.4 per cent, resulted in favor of the employers.

In the following table the strikes and lockouts which began in 1896 are arranged in groups according to the number of persons involved:

PERSONS AFFECTED BY STRIKES AND LOCKOUTS AND WORKING DAYS LOST, BY  
GROUPS, 1896.

[Persons affected means persons thrown out of work.]

Groups.	Strikes and lockouts.	Persons affected.		Working days lost.	
		Number.	Per cent.	Number.	Per cent.
5,000 persons and upward .....	3	19,141	9.63	452,063	12.13
2,500 and under 5,000 .....	5	15,740	7.92	537,945	14.44
1,000 and under 2,500 .....	30	38,373	19.31	719,456	19.31
500 and under 1,000 .....	53	35,828	18.03	546,829	14.67
250 and under 500 .....	120	40,814	20.54	574,184	15.41
100 and under 250 .....	191	29,438	14.82	510,323	13.69
50 and under 100 .....	152	10,461	5.27	216,707	5.82
Under 50 .....	467	8,892	4.48	168,755	4.53
Total .....	1,021	198,687	100.00	3,726,262	100.00

a These figures differ slightly from those given in preceding tables as the aggregate days lost during 1896, since they exclude the days lost in 1896 through disputes in progress at the beginning of the year and include those lost in 1897 through disputes which began in 1896.

It appears from the above that a comparatively small number of disputes accounted for a very large proportion of the persons involved



and of the total days lost. Thus 91 out of a total of 1,021 strikes and lockouts were participated in by about 55 per cent of the aggregate number of persons involved. The average duration of strikes and lockouts, in working days, was 18.8, as compared with 21.6 in 1895. The methods of settlement in 1896 were as follows:

PERSONS AFFECTED BY STRIKES AND LOCKOUTS, BY METHODS OF SETTLEMENT AND INDUSTRIES, 1896.

[Persons affected means persons thrown out of work.]

Methods of settle- ment.	Industries.								Total persons affected.	Per cent.
	Build- ing.	Mining and quarry- ing.	Metal, engi- neering, and ship- build- ing.	Textile.	Cloth- ing.	Trans- porta- tion.	Miscel- laneous.	Em- ployees of pub- lic au- thori- ties.		
Arbitration.....	463	5,018	4,706	51	12	.....	30	.....	10,280	5.2
Conciliation and mediation.....	4,867	800	1,597	1,668	190	800	19	.....	9,941	5.0
Direct negotiation or arrangement between the par- ties .....	17,445	38,597	34,521	19,812	3,271	2,207	4,596	487	120,936	60.9
Submission of working people..	9,485	20,011	4,368	9,795	116	200	2,755	50	46,780	23.6
Replacement of working people..	1,191	1,375	1,239	2,338	382	113	809	3	7,450	3.7
Closing of works or establishments	19	1,402	1,693	.....	45	.....	2	.....	3,161	1.6
Total .....	33,470	67,293	a48,124	b33,664	4,016	3,320	8,211	540	c198,548	100.0

a Three disputes affecting 86 persons not settled in 1896.  
b One dispute affecting 53 persons not settled in 1896.  
c Four disputes affecting 139 persons not settled in 1896.

Strikes and lockouts affecting 71.1 per cent of the total persons involved in 1896 were settled by negotiation or other conciliatory methods, while disputes involving 28.9 per cent ended in the submission of the working people or their loss of employment.

STATE OF THE LABOR MARKET.—Returns received from trade unions in the United Kingdom show a lower percentage of unemployed in 1896 than during any year since 1890. The following table gives the percentages of the unemployed for the ten years 1887 to 1896:

PERCENTAGE OF MEMBERS OF TRADE UNIONS REPORTED AS UNEMPLOYED AT THE END OF EACH MONTH, 1887 TO 1896.

Month.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	Aver- age.
January.....	10.3	7.8	3.1	1.4	3.4	5.0	10.0	7.0	8.2	4.5	6.1
February .....	8.5	7.0	2.8	1.4	2.6	5.7	9.5	6.3	7.9	3.8	5.6
March.....	7.7	5.7	2.2	1.7	2.8	5.7	8.7	6.5	6.5	3.5	5.1
April .....	6.8	5.2	2.0	2.0	2.7	5.4	6.9	6.1	6.5	3.2	4.7
May.....	8.5	4.8	2.0	2.0	3.0	5.9	6.2	6.3	6.0	3.3	4.8
June.....	8.0	4.6	1.8	1.9	2.9	5.2	5.8	6.3	5.6	3.2	4.5
July .....	8.5	3.9	1.7	2.3	3.3	5.0	6.2	7.4	5.3	3.1	4.7
August .....	8.3	4.8	2.5	2.3	4.2	5.1	7.1	7.7	5.2	3.4	5.1
September .....	7.5	4.4	2.1	2.6	4.5	6.2	7.3	7.6	4.9	3.6	5.1
October .....	8.6	4.4	1.8	2.6	4.4	7.3	7.3	7.4	4.9	3.3	5.2
November.....	8.5	3.1	1.5	2.4	3.8	8.3	7.2	7.0	4.3	2.9	4.9
December .....	6.9	3.3	1.7	3.0	4.4	10.2	7.9	7.7	4.8	3.2	5.3
Average .....	8.2	4.9	2.1	2.1	3.5	6.3	7.5	6.9	5.8	3.4	5.1

*Fifth Annual Report on Changes in Wages and Hours of Labor in the United Kingdom. 1897. lxx, 233 pp. (Published by the Labor Department of the British Board of Trade.)*

The present report is published in continuation of similar reports for the years 1893, 1894, 1895, and 1896, which were reviewed in Bulletins Nos. 2 and 14. The changes recorded in the market rates of wages and recognized hours of labor of working people in 1897 are based upon returns furnished by employers, employers' associations, trade unions, and other parties concerned.

The year 1897, like 1896, was a year of rising wages, all the principal groups of industries showing an advance. At the same time the hours of labor were reduced in nearly all the groups. The year 1897 has been more favorable to the workingmen, with respect to wages and hours of labor, than any of the four preceding years for which investigations have been made. This is shown in the following comparative statement, which summarizes the principal data relating to changes in rates of wages and hours of labor for the years 1893 to 1897:

CHANGES IN RATES OF WAGES AND HOURS OF LABOR, 1893 TO 1897.

Items.	1893.	1894.	1895.	1896.	1897.
Changes in rates of wages:					
Increases.....	508	608	624	1,471	1,411
Decreases.....	198	171	180	136	107
Total.....	706	779	804	1,607	1,518
Separate individuals affected—					
By increases in rates of wages.....	142,364	175,615	79,867	382,225	560,707
By decreases in rates of wages.....	256,473	488,357	351,895	167,357	13,855
By changes, leaving wages same at end as at beginning of year.....	151,140	6,414	4,956	58,072	22,882
Total.....	549,977	670,386	436,718	607,654	597,444
Average weekly increase in rates of wages....	\$0.112	<i>a</i> \$0.330	<i>a</i> \$0.314	\$0.213	\$0.259
Changes in hours of labor:					
Increases.....	16	2	12	22	7
Decreases.....	139	219	129	223	247
Total.....	155	221	141	245	254
Separate individuals affected—					
By increases in hours of labor.....	1,530	128	1,287	73,616	1,060
By decreases in hours of labor.....	33,119	77,030	21,448	34,655	69,572
Total.....	34,649	77,158	22,735	108,271	70,632
Average weekly reduction in hours of labor...	1.99	4.04	1.94	0.73	4.03

*a* Decrease.

CHANGES IN RATES OF WAGES.—The total number of changes in rates of wages in 1897 was 1,518, being slightly smaller than in the preceding year. This is also true of the number of persons affected by such changes, which was 597,444 in 1897 and 607,654 in 1896. The results of such changes, however, show a greater number of persons affected by increases in 1897 and a much smaller number whose wages were reduced than in any of the four preceding years. In 1897, 560,707



persons were affected by an increase of wages as against 382,225 in 1896, the greatest number in any of the four preceding years. In the same year 13,855 persons suffered a reduction as against 167,357 in 1896, the smallest number in any of the four years mentioned. Since 1894 there has been a steady and decided fall in the number of persons whose wages were reduced.

In the following table the changes in the rates of wages in 1897 and the number of employees affected are shown by industries:

NUMBER OF INCREASES AND DECREASES IN WEEKLY WAGES, AND EMPLOYEES AFFECTED, BY INDUSTRIES. 1897.

Industries.	Changes.			Employees affected.			
	In-creases.	De-creases.	Total.	Wages in-creased.	Wages de-creased.	Wages same at end as at begin-ning of year.	Total.
Building .....	483	.....	483	83,219	.....	.....	83,219
Mining and quarrying .....	33	6	39	249,270	1,319	.....	250,589
Metal, engineering, and shipbuild- ing .....	539	74	613	176,918	7,768	21,576	206,262
Textile .....	38	19	57	3,894	4,115	1,306	9,315
Clothing .....	33	.....	33	1,939	.....	.....	1,939
Miscellaneous .....	166	7	173	24,490	648	.....	25,138
Employees of public authorities.....	119	1	120	20,977	5	.....	20,982
Total.....	1,411	107	1,518	560,707	13,855	22,882	597,444

In the case of each group of industries the number of changes resulting in an increase of wages greatly exceeded the number resulting in a decrease. The same is true with regard to the number of persons affected, except in the group of textiles, where 4,115 employees suffered a reduction, while 3,894 had their wages increased. In the building trades, in all of the 483 changes, affecting 83,219 persons, there were no reductions in wages. In the clothing industry all the changes resulted in higher wages.

The following table shows, by industries, for the years 1893 to 1897, inclusive, the net results of changes in wages:

AVERAGE INCREASE IN RATES OF WAGES, BY INDUSTRIES, 1893 TO 1897.

Industries.	Average increase per employee per week.				
	1893.	1894.	1895.	1896.	1897.
Building .....	\$0.360	\$0.345	\$0.411	\$0.502	\$0.517
Mining and quarrying .....	.228	a.421	a.461	a.127	.132
Metal, engineering, and shipbuilding .....	a.218	a.157	.005	.370	.269
Textile .....	a.086	.112	.046	.020	.041
Clothing .....	.385	.335	.502	.314	.476
Miscellaneous .....	a.020	a.076	a.127	.416	.507
Employees of public authorities .....	.380	.360	.390	.294	.350
All industries .....	.112	a.330	a.314	.213	.259

a Decrease.

In 1897, for the first time during the five-year period, each group of industries shows an increase in the average weekly rates of wages per

employee, the increase varying from an average of \$0.041 per week in the group of textiles to \$0.517 per week in the group of building trades. During the entire period of five years the groups of building and clothing industries and employees of public authorities showed a steady increase in the average weekly rates of wages.

Returns regarding wages of agricultural laborers in England and Wales show a continued upward tendency in 1897 when compared with 1896, when an increase in wage rates was also noted. The number of laborers in districts in which changes in current rates took place in 1897 was 87,385, compared with 99,329 in 1896. Of this number, in 1897, 4,932 were in districts in which wages fell, compared with 40,751 in 1896, and 82,453 were in districts in which wages rose, compared with 58,578 in 1896. The total net effect of the changes in 1897 was an increase of £2,411 (\$11,733) per week, or 6½d. (\$0.132) per head, compared with £383 (\$1,864) in 1896, or a rise of 1d. (\$0.02) per head. Calculated on the total number of agricultural laborers in England and Wales, the rise per head in 1897 amounted to ¾d. (\$0.015) per week, as compared with a rise of ⅓d. (\$0.003) per week in 1896 and a fall of ¾d. (\$0.015) per week in 1895.

The information concerning railway employees is shown in the form of actual earnings, as the remuneration is usually regulated by graduated scales of pay rather than by fixed wage rates. Returns are published from leading railway companies employing nearly 90 per cent of all the railway employees in the United Kingdom. The returns cover the number of employees and total wages paid the first week in December, 1896 and 1897, respectively, in the passenger, freight, locomotive, and machinery construction departments.

The returns are summarized in the following table:

RAILWAY EMPLOYEES AND WAGES PAID IN 17 COMPANIES FOR THE FIRST WEEK IN DECEMBER, 1896 AND 1897.

Districts.	Compa- nies.	1896.			1897.		
		Employees.	Wages.		Employees.	Wages.	
			Total.	Average.		Total.	Average.
England and Wales . . . . .	12	311, 796	\$1, 856, 078	\$5. 95	327, 269	\$1, 982, 310	\$6. 06
Scotland . . . . .	3	38, 350	211, 430	5. 52	39, 676	217, 012	5. 47
Ireland . . . . .	2	7, 213	38, 849	5. 38	7, 202	39, 292	5. 45
Total . . . . .	17	357, 359	2, 106, 357	5. 90	374, 147	2, 238, 614	5. 98

The average wages for the 17 railways in the United Kingdom rose from 24s. 2¾d. (\$5.90) in 1896 to 24s. 7d. (\$5.98) in 1897, or 4½d. (\$0.091) per head.

Among seamen the data obtainable for 1897 showed a decidedly rising tendency in wages.

CHANGES IN HOURS OF LABOR.—There were 254 changes reported in the hours of labor, all but 7 of which resulted in a reduction of the



working time. Of 70,632 employees affected by these changes, 69,572 had their hours of labor reduced and but 1,060 had them increased. The total net reduction in weekly hours of labor amounted to 284,675 hours, or an average reduction of 4.03 hours per week per person affected by changes. The average reduction in working time is greater than in the years 1893, 1895, and 1896, and is nearly equal to that in 1894, the year of the introduction of the eight-hour day in the Government service, when the average reduction was 4.04 hours per week.

The following table shows the number of employees affected by changes in the hours of labor, classified according to the extent of such changes, for the years 1893 to 1897, inclusive:

EMPLOYEES AFFECTED BY CHANGES IN HOURS OF LABOR. BY EXTENT OF CHANGE PER WEEK, 1893 TO 1897.

Change per week.	Employees whose hours were—									
	Increased.					Decreased.				
	1893.	1894.	1895.	1896.	1897.	1893.	1894.	1895.	1896.	1897.
Under 1 hour .....	480			71,899	705	5,538	2,636	2,961	4,871	9,468
1 or under 2 hours ...	803	43	431	144	55	9,800	4,141	9,675	10,695	30,636
2 or under 4 hours . .	247		17	1,016	141	15,058	37,535	5,235	11,939	11,534
4 or under 6 hours .....			150	252	70	1,491	9,536	1,926	2,200	6,303
6 or under 8 hours .....			500	250	89	1,011	20,504	1,229	3,301	5,658
8 hours or over .....		85	189	55		221	2,628	422	1,649	5,973
Total .....	1,530	123	1,287	73,616	1,060	33,119	77,930*	21,448	34,655	69,572

The reduction of hours in 1897 in most cases amounted to less than two per week, although the proportion of employees whose hours of labor were reduced eight hours per week or over was unusually large. Where the hours of labor were increased, the increase amounted to less than one hour per week in the case of about two-thirds of the employees so affected.

The number of changes in the hours of labor and the number of employees affected during the year 1897 are shown by industries in the following table:

NUMBER OF INCREASES AND DECREASES IN HOURS OF LABOR, AND EMPLOYEES AFFECTED, BY INDUSTRIES, 1897.

Industries.	Changes.			Employees affected.			Decrease per employee in average weekly hours of labor.
	In-creases.	De-creases.	Total.	Hours increased.	Hours decreased.	Total.	
Building .....		90	90		16,084	16,084	1.13
Mining and quarrying .....	1	4	5	55	77	132	2.32
Metal, engineering, and ship-building .....	2	45	47	150	29,930	30,080	5.99
Textile .....		2	2		273	273	3.55
Clothing .....							
Miscellaneous .....	2	81	83	150	21,067	21,217	3.36
Employees of public authorities ..	2	25	27	705	2,141	2,846	4.56
Total .....	7	247	254	1,060	69,572	70,632	4.03

The greatest number of changes in the hours of labor was reported in the group of building trades, all of which changes resulted in reduced hours of labor. The largest number of persons affected by changes in hours of labor was in the group of metal, engineering, and shipbuilding, in which industry 29,930 persons had their labor time reduced, and but 150 had it increased. In the clothing industry no change was reported. The greatest decrease in the average weekly hours of labor was 5.99, in the metal, engineering, and shipbuilding industries.

During 1897, 5,896 employees in private establishments and 200 employees in the public service secured an eight-hour day for a six-day week, while 5,036 employees in private establishments and 302 in the public service secured an eight-hour day for a week of seven days. On the other hand, 300 employees who had been working eight hours per day had their working day increased.

**PIECE PRICE LISTS AND SLIDING SCALES.**—Piece price lists adopted and revised in 1897 are given for the metal, textile, boot and shoe, tailoring, hat, glass bottle, and leather industries, and sliding scales for blast furnace men and coal miners. The report also shows the text of a number of the most important agreements entered into by employers and employees regarding rates of wages, hours of labor, and other working conditions.



## DECISIONS OF COURTS AFFECTING LABOR.

[This subject, begun in Bulletin No. 2, has been continued in successive issues. All material parts of the decisions are reproduced in the words of the courts, indicated when short by quotation marks and when long by being printed solid. In order to save space, immaterial matter, needed simply by way of explanation, is given in the words of the editorial reviser.]

### DECISIONS UNDER STATUTORY LAW.

CONSTITUTIONALITY OF STATUTE—EMPLOYERS' LIABILITY ACT—RAILWAY RELIEF ASSOCIATION, ETC.—*Pittsburg, Cincinnati, Chicago and St. Louis Railway Co. v. Montgomery*, 49 *Northeastern Reporter*, page 582.—Action was brought in the circuit court of Cass County, Ind., by William J. Montgomery against the above-named railroad company to recover damages for personal injuries due to the negligence of said company and sustained by him while in its employ. A judgment was rendered for Montgomery and the defendant company appealed the case to the supreme court of the State, which rendered its decision February 19, 1898, and affirmed the judgment of the lower court.

The opinion of the supreme court was delivered by Judge McCabe, and the facts in the case and the reasons for the decision are sufficiently shown in the following quotation therefrom:

The only objection urged to the complaint is that it shows that the plaintiff [Montgomery] was a freight brakeman in the defendant's [above-named railroad company] service on its railroad, and that it was the negligence of the engineer of the train on which he was serving that caused his injury, and that, under the fellow-servant rule, there was no liability. The injury occurred on July 1, 1893, after the act approved March 4, 1893, took effect, touching the liability of railroads, commonly called the "Employers' liability act." Acts 1893, p. 294; Rev. St., 1894, §§ 7083-7087 (Horner's Rev. St., 1897, §§ 5206-5206v).

Appellant's [above-named railroad company] learned counsel contend that it is settled law that the employer is not liable to an employee for injuries caused by the negligence of a coemployee in the same general service, unless the employer was guilty of some negligence in employing the servant, with knowledge of his negligent habits or incompetency, or retained him after knowledge of such negligence or lack of skill. There is no showing of any such negligence on the part of the appellant, as employer, in the complaint. Appellee [Montgomery] concedes this to be the common-law rule, and that it prevailed in this State prior to the enactment above mentioned. Indeed, it is conceded by the appellee that his complaint depends upon that act for its sufficiency in its facts to constitute a cause of action, and is founded thereon.

It is first contended by the appellant that the act does not change the common-law rule, and it would seem to follow, if that is true, that the complaint is clearly bad. The first section provides: "That every railroad or other corporation, except municipal, operating in this State



shall be liable in damages for personal injury suffered by any employee while in its service, the employee so injured being in the exercise of due care and diligence, in the following cases." Then follow four subdivisions, specifying the cases in which liability is to attach, the fourth of which, and the one on which this action is founded, reads thus: "Where such injury was caused by the negligence of any person in the service of such corporation, who has charge of any signal, telegraph office, switch yard, shop, roundhouse, locomotive engine, or train upon a railway, or where such injury was caused by the negligence of any person, coemployee, or fellow-servant engaged in the same common service in any of the several departments of the service of any such corporation, the said person, coemployee, or fellow-servant, at the time acting in the place and performing the duty of the corporation in that behalf, and the person so injured, obeying or conforming to the order of some superior at the time of such injury, having authority to direct; but nothing herein shall be construed to abridge the liability of the corporation under existing laws." Appellant's learned counsel say: "The complaint lacks two allegations to make it good under this provision, (1) That the engineer at the time was acting in the place and performing the duty of the corporation in that behalf; and (2) that appellee was obeying or conforming to the order of some superior at the time of such injury, having authority to direct. It was not alleged that the engineer was acting in the place or performing the duty of the master, or that appellee was acting in obedience to a superior," etc.

This language, together with other parts of appellant's brief, indicates that appellant's learned counsel construe the language of the statute above quoted as conveying the meaning that the right to recover against an employer for the negligence of a coemployee or fellow-servant rests upon the condition that such negligent coemployee was at the time acting in the place and performing the duty that the master or employer owed to his or its servants or employees generally, and yet they do not say so in so many words. The majority of the court are of the opinion that the decision of that question is not necessary to the decision of this case. They hold that the only part of the fourth subdivision of said section which is necessary to be considered in determining the sufficiency of the complaint is the following: "Where such injury was caused by the negligence of any person in the service of such corporation who has charge of any \* \* \* locomotive engine upon a railway, \* \* \* and the person so injured, obeying or conforming to the order of some superior at the time of such injury, having authority to direct;" and that hence it was not necessary that the complaint should state that the alleged negligent engineer, at the time he committed the alleged negligent injury, as provided in such concluding clause, was acting in the place and performing the duty of the corporation in that behalf, while the writer hereof is of the opinion that the whole of the fourth subdivision must stand together, and that the words quoted from the concluding clause qualify the liability created in the first clause or clauses. But the duty of the corporation therein mentioned, in the opinion of the writer, means, not the duty it owes to its servants, but the duty it owes to the public in carrying on its business; and the words, "acting in the place of such corporation," with the other words quoted, were used to convey the idea that, in order that the liability mentioned should exist, the negligent person, coemployee, or fellow-servant must be acting as such employee, in the line of his duty, at the time of his negligence. The writer is of opinion that the complaint is good under this construction; and the holding of the court



is that, in order to make the complaint good under the first part of the subdivision quoted, as to the point in question, it is only required that it state that the engineer, while in the service of appellant, in charge of a locomotive engine, negligently injured the appellee, both being at the time acting in the line of duty as employees of the appellant. That being so, the averments of the complaint, showing, as they do, that at Hartford City, Ind., the freight train upon which appellee was brakeman stopped to switch out loaded cars; that the conductor of said train, acting in the service of appellant, the authority and position of said conductor making it appellee's duty to obey his orders in respect to said train and switching, ordered appellee to go between said cars to make couplings, and while so engaged the engineer in charge of said train, also in appellant's service, and in the line of his duty, without signal, carelessly, negligently, and recklessly reversed said engine and applied full steam, whereupon said cars were driven and jammed together with terrific force, without notice to appellee, whereby appellee's entire right hand was caught between the bumpers and mashed off, without any fault on his part, make the complaint sufficient, under the statute, as to the objection thereto urged.

The next contention against the sufficiency of the complaint is that the act is unconstitutional, that being confessedly the foundation of the action. It is first contended that it violates section 19 of article 4 of the State constitution, which provides that "every act shall embrace but one subject and matters properly connected therewith; which subject shall be expressed in the title." It is contended that the subject is not expressed in the title, in that the title is "An act regulating liability of railroads and other corporations except municipal," while the provisions of the act itself are, as claimed by appellant, to create a liability which up to that time had no existence. The precise question here involved was decided adversely to appellant's contention, on a statute similar to our own, under a constitution an exact copy of our own in this respect, in *McAnnich v. Railroad Co.*, 20 Iowa, 338. We feel content to follow that case, without extending this opinion by repeating its reasoning, and, accordingly, hold that the subject is sufficiently expressed in the title.

It is next contended that the act violates section 23 of article 1 of the constitution, providing that "the general assembly shall not grant to any citizen or class of citizens privileges or immunities which upon the same terms shall not equally belong to all citizens." Railroad corporations are persons and citizens within the meaning of this provision of our bill of rights, and the equality clause of the fourteenth amendment to the Constitution of the United States. The inequality complained of is that corporations, except municipal, are made liable for damages caused to one of their servants by the negligence of a co-employee or fellow-servant without any negligence on the part of the employer, while other employers are left free from such liability to their employees. Appellant also contends that the act violates the equality clause of the fourteenth amendment of the Constitution of the United States, demanding for every person the equal protection of the laws. The same provision, quoted from the bill of rights in the constitution of this State, is found word for word in the bill of rights of the constitution of Iowa. The supreme court of that State, in upholding the employers' liability act of that State, held that the provision mentioned in the bill of rights in the constitution of that State was, in effect, the same as the equality clause of the fourteenth amendment to the Federal Constitution, and that the employers' liability act did not violate either



constitution in respect of equality of laws or equality of rights secured by each of said provisions in *Bucklew v. Railway Co.*, 64 Iowa, 611, 21 N. W., 103. That decision rests largely on two decisions made upon the subject of the constitutionality of the employers' liability act of Kansas and that of Iowa in the Supreme Court of the United States. Mackey had recovered a judgment for \$12,000 damages against the Missouri Pacific Railway Company for injuries caused by a coemployee of that company, which, on appeal, was affirmed by the supreme court of Kansas. From that judgment the company appealed to the Supreme Court of the United States, on the ground that the Kansas statute violated the fourteenth amendment to the Constitution of the United States. But that court affirmed the judgment, holding that the act in no way infringed that amendment. (*Railroad Co. v. Mackey*, 127 U. S., 205, 8 Sup. Ct., 1161.) Mr. Justice Field, speaking for the court, there said: “\* \* \* The company calls the attention of the court to the rule of law exempting from liability an employer for injuries to employees caused by the negligence or incompetency of a fellow-servant, which prevailed in Kansas and in several other States previous to the act of 1874, unless he had employed such negligent or incompetent servant without reasonable inquiry as to his qualifications, or had retained him after knowledge of his negligence or incompetency. The rule of law is conceded where the person injured and the one by whose negligence or incompetency the injury is caused are fellow-servants in the same common employment, and acting under the same immediate direction. \* \* \* Assuming that this rule would apply to the case presented but for the law of Kansas of 1874, the contention of the company \* \* \* is that the law imposes upon railroad companies a liability not previously existing, in the enforcement of which their property may be taken, and thus authorizes, in such cases the taking of property without due process of law, in violation of the fourteenth amendment. The supposed hardship and injustice consist in imputing liability to the company, where no personal wrong or negligence is chargeable to it or its directors. But the same hardship and injustice, if there be any, exist when the company, without any wrong or negligence on its part, is charged for injuries to passengers. \* \* \* The utmost care on its part will not relieve it from liability, if the passenger injured be himself free from contributory negligence. The law of 1874 extends this doctrine, and fixes a like liability upon railroad companies, where injuries are subsequently suffered by employees, though it may be by the negligence or incompetency of a fellow-servant in the same general employment and acting under the same immediate direction. That its passage is within the competency of the legislature we have no doubt. The objection that the law of 1874 deprives the railroad companies of the equal protection of the laws is even less tenable than the one considered. It seems to rest upon the theory that legislation which is special in its character is necessarily within the constitutional inhibition; but nothing can be further from the fact. The greater part of all legislation is special, either in the objects sought to be attained by it or in the extent of its application. Laws for the improvement of municipalities, the opening and widening of particular streets, the introduction of water and gas, and other arrangements for the safety and convenience of their inhabitants, and laws for the irrigation and drainage of particular lands, for the construction of levees and the bridging of navigable rivers, are instances of this kind. \* \* \* Such legislation is not obnoxious to the last clause of the fourteenth amendment, if all persons subject to it are



treated alike under similar circumstances and conditions in respect both of the privileges conferred and liabilities imposed. \* \* \* But the hazardous character of the business of operating a railway would seem to call for special legislation with respect to railroad corporations, having for its object the protection of their employees, as well as the safety of the public." A like decision was made by the same court, upholding the employers' liability law of Iowa, which has been in force in that State ever since 1862. Some ten or twelve of the States of the Union have such acts on their statute books, and none of them have ever been held unconstitutional.

It is also urged, as an objection to the validity of the act, that it exempts municipal corporations from its operation. But no reason has been suggested why municipal corporations should be classed with railroad corporations. We have many statutes applying to railroad corporations that do not apply to municipal corporations. There is no necessary similarity between them. Nor is the business of municipal corporations so peculiarly hazardous to their employees as to call for such special legislation as is called for in case of railroad corporations to protect their employees. We therefore conclude that the act does not violate the constitution, either Federal or State.

It is next contended that the circuit court erred in sustaining the plaintiff's demurrer to the second paragraph of the defendant's answer. It sets up that on the 8th day of March, 1893, and prior to the defendant's injury, he became a member of the volunteer relief department of the Pennsylvania lines west of Pittsburg, and was such member at the time he was injured, and so continued long after his said injury; that the management of said department is under the charge of said lines west of Pittsburg; that said fund is made up of stated contributions from said lines and the employees thereon, and said lines guarantee the fulfillment of all the obligations of said department, and make up and pay all deficiencies in the amounts necessary to pay all benefits to its members. In becoming a member of said relief department, he agreed to be bound by its rules and regulations, among which were that each member, on complying with its rules, was entitled to receive stipulated benefits on account of disability incurred by injury received to such member in the service of the company. This agreement is all set forth in the appellee's written application for membership, and signed by him; and among the stipulations contained therein is the following, namely: "And I agree that the acceptance of benefits from the said relief fund for injury or death shall operate as a release of all claims for damages against said company arising from injury or death which could be made by or through me, and that I, or my legal representatives, will execute such further instrument as may be necessary formally to evidence such acquittance." And it is further averred that after receiving the injury complained of, while disabled thereby, he accepted benefits from said relief department to the amount of \$385. But it is contended by the appellee that by the fifth section of the act we have been considering the contract set up in this answer as a bar is made void. The contract set up is shown therein to have been entered into after the act took effect and became a law. The section reads thus: "All contracts made by railroads or other corporations with their employees, or rules or regulations adopted by any corporation releasing or relieving it from liability to any employee having a right of action under the provisions of this act are hereby declared null and void." The balance of the section makes the whole act apply to future injuries, and not to past. The validity of this section is assailed on the grounds



that it violates the bill of rights and the fourteenth amendment of the Federal Constitution. What we have said as to the validity of the other parts of the act, under these constitutional provisions, is applicable to this section, and hence it must be held not to infringe them.

Assuming that it [the fifth section] is valid, and makes contracts releasing or relieving corporations from liability under the act absolutely void, appellant's learned counsel contend that there is nothing in the agreement set forth in the second paragraph of the answer relieving or releasing the company from liability for negligence, or from any liability whatever. They say appellee "elected to accept benefits from the relief fund, and, having done so, he can not maintain this action for damages. That is the essence of his agreement." Appellant's counsel further say in one of their briefs that "the payment and acceptance of benefits under the terms of the contract in this relief fund is simply a compromise and settlement of the claim of the injured employee against the company." Let us suppose that the above statement is true. It is certainly the strongest and best statement that can be made of appellant's position. What is it that makes the acceptance of benefit from the relief fund a compromise and settlement of appellee's claim? Only one answer can be made to this question, and that is that the antecedent contract alone makes it such. There is no allegation in the answer that in accepting the benefits appellee made any agreement or compromise whatever, and there is no claim that he did. He simply accepted that which he had a legal and moral right to demand. His own contributions helped to create the fund, and his injury brought him within the rules and regulations entitling him to the benefits. So, even if it was a compromise and settlement, it was such wholly before the injury occurred; and, that being so, it amounts to nothing more than an attempt to secure a release of future liability under the act, call it by whatsoever name we may. But such acceptance is not, in any proper or legal sense, a compromise and settlement of liability under the act. The language of the contract is: "And I agree that the acceptance of benefits from said relief fund shall operate as a release of all claims for damages against said company, arising from such injury or death," etc. So, by the express terms of the contract, it is a release, and not a compromise and settlement. The acceptance of benefits shall operate as a release. But what makes it so? If the antecedent contract was abrogated, the acceptance of benefits would have no effect whatever upon the question of appellant's liability under the act; because he had a legal and moral right, as before remarked, to demand and receive such benefits. So, if the release takes place, it is not by virtue of the acceptance, but it is by the force, vigor, and effect of the antecedent contract. It breathes that effect into the acceptance.

Appellant's learned counsel contend that an exact copy of this contract was held valid in the following cases: *Johnson v. Railroad Co.*, 163 Pa. St., 127, 29 Atl., 854; *Ringle v. Railroad Co.*, 164 Pa. St., 529, 30 Atl., 492; *Locase v. Pennsylvania Co.*, 10 Ind. App., 47, 37 N. E., 423; *Donald v. Railway Co.*, 93 Iowa, 284, 61 N. W., 971. The first three cases just cited were decided in States not having employers' liability acts forbidding contracts of this kind in force at the time the injury sued for occurred. And they proceeded upon the sole ground that the contract did not violate public policy, and therefore they were upheld. Without either approving or disapproving of the rule laid down by the Pennsylvania supreme court and our own appellate court, yet the United States circuit court for the district of Colorado decided the ques-



tion the other way in a strong and able opinion in *Miller v. Railway Co.*, 65 Fed., 305; and we think there is a marked distinction in the rule where a contract is charged with violating public policy and where it contravenes a positive statutory prohibition, and especially where the statute provides that the inhibited contract shall be null and void. As was said in *Brooks v. Cooper*, 50 N. J. Eq., 761, 26 Atl., 978: "Where there is no statutory prohibition, the law will not readily pronounce an agreement invalid on the ground of policy or convenience, but is, on the contrary, inclined to leave men free to regulate their affairs as they think proper. \* \* \* Now, the intention of the contract was to contravene the statute, and this intention is revealed in the contract. This renders the contract vicious and unenforceable." As we have before said, the contract in question is a release of appellant's liability under the act upon a certain condition. That it is a conditional release of such liability, dependent upon the happening of the condition, namely, the acceptance of said benefits by appellee, there can be no doubt. If that condition happens, as it did, appellant's liability under the act is released by virtue of the antecedent contract, if it is enforced. If it is enforced, it must be so done in violation of the statute which makes all such contracts null and void. That certainly more than tends to obstruct both the letter and spirit of the statute.

If we were even mistaken in construing this contract as a conditional one, so as to bring it within the condemnation of the statute in question, it unquestionably falls within the principle laid down by Wharton, thus: "The prohibition of a statute can not be evaded by putting a contract in a shape which, while nominally not inconsistent with the statute, virtually contravenes its provisions. \* \* \* If a contract conflicts with the general policy and spirit of a statute governing it, it will not be enforced, although there may be no literal conflict."

We are therefore of opinion that the contract set up in the second paragraph of the answer is in contravention of the statute, and hence, by force thereof, the contract so set up is null and void; and, that being so, said answer was bad, and the circuit court did not err in sustaining the demurrer thereto for want of sufficient facts. The judgment is affirmed.

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DREDGERS SUBJECT TO LIENS OF EMPLOYEES FOR WAGES, ETC.—*McRae v. Bowers Dredging Co.*, 86 Federal Reporter, page 344.—Upon petition of one McRae, heard in the United States circuit court for the district of Washington, the property and business of the above-named dredging company was placed in the hands of a receiver. Part of said property consisted of the dredgers *Anaconda* and *Python*, vessels designed to operate afloat and to navigate from place to place where their services were required in dredging and deepening rivers, harbors, and waterways. Certain parties, having been employed on said dredgers and having claims for wages, etc., against the dredging company, intervened in the case, claiming liens against the dredging vessels. Their right to such liens was disputed on several grounds, but was sustained by the circuit court in its decision which was rendered March 31, 1898.



The opinion of said court was delivered by District Judge Hanford, and the following is quoted therefrom:

The main question in the case is whether the dredgers are vessels subject to admiralty process, whether the work which they were doing was a maritime service, whether the contracts under which they were supplied and kept in repair are maritime, and whether their crews have maritime liens for their wages.

A dredging vessel, designed to facilitate navigation, by going from place to place, to be used in deepening harbors and channels, and removing obstructions from navigable rivers, and to bear afloat heavy machinery and appliances for use in that class of work, may commit, or be injured by a marine tort, and she may become subject to a maritime lien for salvage. She has mobility, and her element is the water. She can be used afloat, and not otherwise. She has carrying capacity, and her employment has direct reference to commerce and navigation. I perceive no reason for exempting such a vessel from the liabilities arising from nonpayment of the wages of her crew, or from such unfulfilled contracts as would subject other vessels to liens enforceable by a court of admiralty.

I find no difficulty in pronouncing in favor of the engineers, firemen, deck hands, and captains who worked on board the dredgers. They have maritime liens for the balances due to them for wages. The captains were not clothed with the authority of masters, but were simply foremen in charge of the working crews. Therefore the rule that the master of a vessel has no lien for wages does not apply to them. Those who worked as general mechanics in keeping the machinery in repair, and the pipemen, who attended to laying, connecting, and moving the lines of pipe, and those who performed necessary labor upon and about the filled area, are also entitled to liens. Their services were required in prosecution of the enterprise in which the vessels were employed. The right to claim a lien for wages under the general maritime law is not restricted to favor only mariners who serve the ship with peculiar nautical skill, but extends to all whose services are in furtherance of the main object of the enterprise in which the ship is engaged.

The claims to liens for wages and for supplies and repairs are founded, not only upon the general maritime law, but also upon a statute in force in this State (Washington), which provides that:

"All steamers, vessels and boats, their tackle, apparel and furniture, are liable: (1) For services rendered on board at the request of or on contract with their respective owners, masters, agents, or consignees. (2) For supplies furnished in this State for their use at the request of their respective owners, masters, agents, or consignees. (3) For work done or material furnished in this State, for their construction, repair, or equipment, at the request of their respective owners, masters, agents, consignees, contractors, subcontractors, or other person or persons having charge in whole or in part of their construction, alteration, repair, or equipment."—(2 Ballinger's Codes and St., Wash., § 5953.)

The power of the legislature to create a lien upon a vessel owned by a nonresident of this State is denied, and a number of decisions have been cited to the effect that the maritime law is not subject to amendment or change either by Congress or the legislature of any State. It is well established, however, by repeated decisions of the Supreme Court, that the State legislatures can create liens upon ships and vessels, and that such liens, when given to secure debts or liabilities cognizable in a court of admiralty, may be enforced by the process of a



court of admiralty. In the matter of liens upon vessels, it is not ownership within the State which renders the vessel subject to the statute, but the fact of the transaction being within the State. There would be no reason or justice in exempting vessels owned by nonresidents, when employed within this State, from liabilities and burdens imposed upon vessels having resident owners; and there is no provision of the Constitution limiting the power of the legislature of a State which can possibly be so construed as to make such exemption of foreign vessels necessary.

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EMPLOYERS' LIABILITY—ASSUMPTION OF RISK BY EMPLOYEE—*Island Coal Co. v. Greenwood*, 50 *Northeastern Reporter*, page 36.—Judgment was rendered in favor of John A. Greenwood in the circuit court of Sullivan County, Ind., in a suit brought by him to recover damages from the Island Coal Company for injuries incurred by him while in its employ. The coal company appealed the case to the supreme court of the State, which rendered its decision April 21, 1898, reversing the judgment of the lower court and ordering a new trial. The facts in the case were substantially as follows: A room in a coal mine was inspected by the mine boss, who found coal adhering to the roof, and all of it that was loose was taken down by his orders; said inspection was made in accordance with the provisions of section 7472 of the Revised Statutes of Indiana of 1894, which reads as follows:

The mining boss shall visit and examine every working place in the mine at least every alternate day while the miners of such place are or should be at work, and shall examine and see that each and every working place is properly secured by props or timber, and that safety in all respects is assured, and, when found unsafe, he shall order and direct that no person shall be permitted in an unsafe place, unless it be for the purpose of making it safe. He shall see that a sufficient supply of props, caps, and timber are always on hand at the miners' working places. He shall see, also, that all loose coal, slate, and rock overhead wherein miners have to travel to and from their work are carefully secured.

Shortly after the mine boss had left the room Greenwood, who with an assistant was operating a cutting machine, brought said machine into the room. They both saw coal adhering to the roof and both sounded it by striking it with a pick and a handle of a shovel and found it apparently firm; that they then went to work, and after working about one and one-half hours the coal fell on them and injured Greenwood; that Greenwood was an experienced miner and knew that coal so adhering to the roof was liable to fall.

The opinion of the supreme court was delivered by Chief Justice Howard, who, after stating the facts in the case at length, uses the following language:

It is not contended that these facts show contributory negligence on the part of appellee [Greenwood]; but counsel for appellant [Island Coal Company] do contend that the facts so found show that appellee



assumed all risk of danger from the falling of the top coal. Counsel for appellee, on the other hand, contend that the danger was not obvious, but concealed or latent, and that as to such danger there is no assumption of risk. It is true that the danger was concealed, but it was concealed from appellant as well as from appellee. And while the duty of inspection rested upon the company, and it was required to furnish a reasonably safe place for its employees to work, yet we think the facts show that the duty so resting upon appellant was performed as fully as was reasonably possible. It is to be remembered that the defect in the roof was not in the passageways of the mine, but in the very place where appellee was at work, and of which he had a fuller and more complete knowledge than appellant could have. The cause of danger was in the immediate presence of appellee, and had been thoroughly tested by him and his assistant, and, on such test was found by them to be, as they believed, perfectly safe. They often found such top coal adhering to the roof when they entered a room to work, and were in the habit of testing it, as they did on this occasion. The jury found that there is always more or less danger of such coal falling, and that no one can tell by any examination when it will fall. It was also found that such dangers often occur and the top coal is removed between the visits of the mine boss, and without his suggestion. No doubt, as to permanent openings through which persons pass and repass in the mine, it is the duty of the mine owner, made so by the common law as well as the statute, to see that the mine is safe from all dangers that may be avoided by removing or propping up loose places in the roof. And while the statute (section 12 of the act approved March 2, 1891 [Acts 1891, p. 57; Rev. St. 1894, § 7472]) makes it also the duty of the mining boss to visit and examine every working place in the mine at least every alternate day, and see that the same is properly secured by props or timber, and that safety in all respects is assured, yet these requirements must be taken in a reasonable sense. It can not be intended that props shall be set up at the very place where the machine men are at work. The men must have room to use their machines and tools and to engage in the actual work before them. Indeed, the fact that the mine boss is not required to be present oftener than every alternate day shows that these props are not to be set up before the workmen have cleared a place for them. It is found that rooms are often shot, cleaned up by the loaders, and again entered by the machine men between the regular visits of the mine boss.

The jury here find that both appellant and appellee knew that a part of the top coal was left adhering to the roof of the place where appellee began work. Appellee found the coal, as he and his assistant believed, to be so fast to the roof as "to be absolutely safe and free from danger." In this it turned out that they were mistaken, whether the defect then existed or was brought about by causes arising after appellee and his assistant had begun their work. Having equal or better opportunities than appellant for knowing the danger threatening him, it would seem that appellee could have no right of action. Were it not for the provisions of the statute above cited, and the failure of the jury to find whether the overhanging coal could be propped or timbered without undue interference with the work, the case would hardly admit of doubt. We are of opinion, however, from a consideration of the whole case as presented, that justice will best be promoted by granting a new trial, rather than by ordering judgment on the answers to interrogatories.



**EMPLOYERS' LIABILITY—MASTER'S DUTY TO WARN EMPLOYEES OF DANGER, ETC.**—*James v. Rapides Lumber Co., Limited*, 23 *Southern Reporter*, page 469.—Judgment was rendered for the plaintiff, Joseph D. James, in the judicial district court of the parish of Rapides, La., in a suit brought by him against the above-named lumber company to recover damages for the use of his minor son, Paul A. C. James, for injuries sustained while an employee of said company. The defendant company appealed the case to the supreme court of the State, which rendered its decision March 7, 1898, and while modifying yet practically affirmed the judgment of the lower court. The evidence showed that said minor was suddenly and on the spur of the moment called upon by the foreman of the sawmill to go to work on a dangerous machine known as an "edger;" that he had no previous knowledge or experience of said machine, and that the foreman gave him no instructions or explanation of the machine or the risk and hazard of its use; that upon going to work upon the "edger," and upon taking hold of the first piece of lumber from it, his left hand was cut off at the wrist. The plaintiff claimed damages for this injury, and also asked that an amount of \$1,000 accident insurance, for which the company had insured the employee, be decreed to be paid to him. The policies were issued to and made payable to the company, and the sum of 75 cents per month was exacted from the employee and deducted from his wages to pay the premiums on them. The plaintiff claimed that because the employee had really paid the premiums on the policies that he, and not the company, was entitled to the insurance money. The supreme court decided that plaintiff was entitled to damages both under the provisions of articles 2315, 2317, and 2320 of the Revised Civil Code, and under the construction of the general law on master and servant. The articles of the Civil Code, above referred to, read as follows:

ARTICLE 2315. Every act whatever of man that causes damages to another obliges him by whose fault it happened to repair it; \* \* \*

ART. 2317. We are responsible, not only for the damage occasioned by our own act, but for that which is caused by the act of persons for whom we are answerable, \* \* \*

ART. 2320. Masters and employers are answerable for the damage occasioned by their servants and overseers, in the exercise of the functions in which they are employed. \* \* \* In the above cases, responsibility only attaches when the masters or employers \* \* \* might have prevented the act which caused the damage and have not done it.

The opinion of the supreme court was delivered by Judge Watkins, and the following language was used therein:

That the employment to which young James was assigned was dangerous, we make no doubt. We think the dangerous character of the trimmer saw ["edger"] is made clear by the testimony, and is made apparent by the photographs. To our thinking, the mere recital—even as it is related in the defendant's answer—of the occurrence discloses a prima facie case of negligence on the part of the defendant. The



proof discloses a total want of knowledge on the part of young James of the situation and of the duties he was expected to perform, and of which he was vouchsafed not a word of information or instruction by the defendant's foreman. Suddenly called upon by the defendant's foreman to undertake the performance of a delicate and important duty in a sawmill in full operation, and supply the place of a sick man who had been engaged thereat for about two years, without warning or precaution, young James was unwittingly cast into the teeth of a small saw, which cut his left hand off within twenty seconds after he had assumed its performance. In our opinion his right to recover damages of the defendant is very clear, under the provisions of the Code (Rev. Civ. Code, arts. 2315, 2317, 2320), and likewise under the construction of the general law applicable to master and servant.

Under all authorities it is the recognized and bounden duty of the master to provide a reasonably safe place at which his servant is to work, and to see to it that he is not exposed to unnecessary risks in the course of his employment. And in order that a dangerous service be intelligently undertaken by his servant, it is the duty of the master sufficiently to acquaint him with its risks and dangers, and give him a fair knowledge of the situation at the time of his employment. Failing in either of the foregoing particulars, the master will be held liable for whatever injury results to the servant.

With regard to the plaintiff's demand for insurance money, but little need be said. We do not think that his demand against the company is well founded, as he avers that it has not yet recovered from the insurance company; and the plaintiff could not, in any event, recover from the insurance company, because his name does not appear as a beneficiary in either one of the policies, which were written in favor of the defendant, exclusively. That the defendant had made exactions of young James monthly, from his wages, in order to keep up the premiums, can not have the effect of establishing in his favor a beneficial interest in the insurance policy. The contrary doctrine was maintained by this court in *Putnam v. Insurance Co.*, 42 La. Ann., 740, 7 South., 602.

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EMPLOYERS' LIABILITY—RAILROAD COMPANIES—DEFECTIVE APPLIANCES—EFFECT OF STATUTE, ETC.—*Hesse v. Columbus, Sandusky and Hocking Railroad Co.*, 50 *Northeastern Reporter*, page 354.—Action was brought by Gertrude Hesse against the above-named railroad company, in the court of common pleas of Perry County, Ohio, to recover damages for the death of Neil Hesse, an employee of said company, and of whose estate she was the qualified administratrix. From a judgment in her favor the case was appealed to the circuit court of Perry County, which reversed the judgment of the court of common pleas. She then carried the case, on writ of error, to the supreme court of the State, which rendered its decision March 22, 1898, and sustained the decision of the circuit court. It was alleged by the plaintiff in her petition that on the 4th of January, 1896, and prior thereto, Neil Hesse was employed as a fireman on the defendant's locomotive No. 35; that said company, in violation of its duty, negligently and carelessly provided him with a defective and unsafe locomotive,



which, while being so used by him, in consequence of its weak and defective condition, and without fault on his part, exploded, whereby he was immediately killed. Said petition did not allege that Hesse was ignorant of the defective condition of the engine.

One of the reasons upon which the circuit court reversed the judgment of the court of common pleas was that "the petition does not state a cause of action." Upon this point Judge Shauck, in the opinion of the supreme court, which was delivered by him, speaks as follows:

The general rule is established in this State and elsewhere that in an action by a servant against his employer for an injury resulting from the latter's negligence in furnishing machinery or appliances, about which the servant is employed, the plaintiff must allege that he was ignorant of the defect from which the injury resulted; or that, having knowledge of such defect, he informed the employer, and continued in the service, relying upon his promise to remedy the defect. This requirement is not answered by an averment that the injury occurred without fault of the plaintiff. Acquiescence with knowledge is not synonymous with contributory negligence. One having full knowledge of defects in machinery with which he is employed may use the utmost care to avert the dangers which they threaten. The servant must be required to communicate to his employer such knowledge as he may have of defects in machinery or appliances about which he is employed, or the law will not be administered according to the reason which is its life. Fully justified by considerations of policy, the courts require of railway companies with respect to their patrons and the public the exercise of that high degree of care which is commensurate with the dangers of their operation. To the end that such care may be exacted from them, they are, with obvious propriety, charged with knowledge of such defects as are or might be discovered by the senses of their officers and employees. It is with like propriety that the communication of such knowledge is required from all with whose knowledge they are chargeable.

But the most confident contention of counsel for the plaintiff is that the act of April 2, 1890 (87 Ohio Laws, 149), releases the employee of a railroad company from this general rule. The act applies to railroad corporations only. Reliance is upon the second section of the act, which is as follows:

"SECTION 2. It shall be unlawful for any such corporation to knowingly or negligently use or operate any car or locomotive that is defective, or any car or locomotive upon which the machinery or attachments thereto belonging are in any manner defective. If the employee of any such corporation shall receive any injury by reason of any defect in any car or locomotive, or the machinery or attachments thereto belonging, \* \* \* such corporation shall be deemed to have had knowledge of such defect before and at the time such injury is so sustained, and when the fact of such defect shall be made to appear in the trial of any action in the courts of this State brought by such employee, or his legal representatives, against any railroad corporation for damages, on account of such injuries so received, the same shall be prima facie evidence of negligence on the part of such corporation."

The act, by its terms, affects the rules of evidence. It does not affect the duty of the employee, nor the rules of pleading with respect to it. In the cases to which it applies it raises against the corporation a



prima facie presumption of negligence from evidence showing that the employee received an injury by reason of a defect in the car or locomotive, or the machinery or attachments thereto belonging. In *Coal Co. v. Norman* the general rule governing cases of this character is stated: "The servant, in order to recover for defects in appliances, must establish three propositions: (1) That the appliance was defective; (2) that the master had, or should have had, notice thereof; (3) that the servant did not know of the defect." The force of the statute under consideration is wholly expended in relieving the servant of the duty of establishing the second of these propositions. His duty with respect to the first and third remains wholly unaffected.

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EMPLOYERS' LIABILITY—RAILROAD COMPANIES—FAILURE TO FENCE TRACK—*Terre Haute and Indianapolis Railway Co. v. Williams*, 50 *Northeastern Reporter*, page 116.—Judgment was obtained in the appellate court of the third district of Illinois in a suit brought by Cora M. Williams, administratrix of the estate of James C. Williams, deceased, to recover damages for the death of said Williams, an engineer in the employ of the above-named railway company. Said company carried the case on writ of error to the supreme court of the State, which rendered its decision April 21, 1898, and affirmed the judgment of the lower court. The court decided that a railroad company is liable for damages resulting from the death of an engineer, caused by the collision of his engine with cattle which had strayed on the track, in the absence of a fence or cattle guard required to be maintained by section 62 of chapter 114 of the revised statutes of 1891, and that while the statute was primarily intended for the benefit of the owners of live stock, it is to be presumed that the legislature intended to protect life as well as property by said law. The section above referred to reads as follows:

Every railroad corporation shall, within six months after any part is open for use, erect and thereafter maintain fences on both sides of its road or so much thereof as is open for use, suitable and sufficient to prevent cattle, horses, sheep, hogs, or other stock from getting on such railroad, except at the crossings of public roads and highways, and within such portion of cities and incorporated towns and villages as are or may be hereafter laid out and platted into lots and blocks, with gates or bars, at the farm crossings of such railroad, which farm crossings shall be constructed by such corporation when and where the same may become necessary, for the use of the proprietors of the lands adjoining such railroad; and shall also construct, where the same has not already been done, and thereafter maintain at all road crossings now existing or hereafter established, cattle guards suitable and sufficient to prevent cattle, horses, sheep, hogs, and other stock from getting on such railroad; and when such fences or cattle guards are not made as aforesaid, or when such fences or cattle guards are not kept in good repair, such railroad corporations shall be liable for all damages which may be done by the agents, engines or cars of such corporation, to such cattle, horses, sheep, hogs, or other stock thereon, and reason-



able attorney's fees in any court wherein suit is brought for such damages, or to which the same may be appealed; but when such fences and guards have been duly made and kept in good repair, such railroad corporation shall not be liable for any such damages, unless negligently or willfully done.

From the opinion of the supreme court, delivered by Judge Craig, the following, showing the facts in the case and the reasons for the decision, is quoted:

At the station of Tabor, where the accident happened, the railroad track was not fenced, and there was no cattle guard where the public highway crosses the railroad, to prevent cattle from passing upon the track. Tabor is not an incorporated town or village, and it was not laid out into lots or blocks. The place consisted of a post-office, a grain elevator, one dwelling, and several cornercribs. On the night of the accident cattle strayed from an adjoining farm, and in the absence of a fence or cattle guard they passed upon the railroad track, where they were struck by the engine attached to a freight train. The engine was thrown from the track, and Williams, the engineer, killed. The theory of the plaintiff is that the failure of the railroad company to fence its track and erect a cattle guard at or near the place where the collision occurred, to prevent cattle from passing upon the track, was the direct cause of the accident and of the death of the engineer, and on account of the failure of the railroad company to discharge the duty imposed by law it is liable. On the other hand, it is claimed that the statute requiring a railroad company to fence its track and erect cattle guards was not passed for the protection of passengers or employees, but was erected solely to provide a remedy for the owner of horses, cattle, or other stock which might be killed on account of the failure of the railroad company to fence its track or erect suitable cattle guards. The statute seems to impose an absolute duty on railroad companies to erect and maintain fences along their rights of way and to construct and maintain cattle guards at road crossings, except in such portions of incorporated cities, towns, and villages as are laid out into lots and blocks. (Hurd's St., c. 114, § 62.) It is true that the statute contains a provision that if such fences or cattle guards are not made or kept in good repair such railroad corporation shall be liable for all damages which may be done by the agents, engines, or cars of such corporation, to cattle, horses, sheep, hogs, or other stock thereon; but this provision can not be held to exclude all other liability which may arise from the failure of the railroad company to fence and put in cattle guards, as required by law. It may be that the statute was primarily intended for the benefit of the owners of stock when their stock was killed on the railroad track, but at the same time the statute was doubtless intended for the benefit of all classes of persons who might need protection. The person whose business requires that he should take passage as a passenger on a train has a deeper interest in having the track protected from obstructions of every character than the owner of stock. So, also, the employee on a railroad train has a deep interest. The lives of the passenger and employee are alike at stake when the railroad is not properly protected from obstructions which are likely to be upon the track where it is not properly fenced. It is, therefore, unreasonable to suppose that the legislature would provide a law for the protection of property and make no provision whatever for the protection of life.



We are satisfied that a fair and reasonable construction of the statute required the railroad company to fence its track and construct cattle guards, and for a failure to do so it is liable to an employee who may have been injured through its failure to perform a duty thus imposed by law.

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EMPLOYERS' LIABILITY—RAILROAD COMPANIES—NEGLIGENCE OF EMPLOYER—SAFETY COUPLERS—*Greenlee v. Southern Railway Co.*, 30 *Southeastern Reporter*, page 115.—This case was heard by the supreme court of North Carolina, having come before it on an appeal from the superior court of McDowell County, in said State, when judgment had been rendered in favor of the plaintiff, Stephen Greenlee, who had brought suit against the above-named railway company for damages for personal injuries incurred while in its employ. The evidence showed that the plaintiff, a laborer in the railroad yard, was injured while attempting to couple two cars, said cars not being equipped with safety or self-coupling devices.

The supreme court rendered its decision May 26, 1898, and affirmed the judgment of the lower court. Its opinion, delivered by Judge Clark, reads as follows:

In any aspect of this case the defendant is liable, whether the plaintiff was or was not guilty of contributory negligence; for the negligence of the defendant in not having self couplers; and in not sending a man to couple cars at all was a continuing negligence which existed subsequent to the contributory negligence, if there had been any, of the plaintiff, and was the proximate cause—the *causa causans*—of the injury. Six years ago, in *Mason v. Railroad Co.*, 111 N. C., 482, at page 487, 16 S. E., 698, at page 699, the court, in considering "whether the defendant company was negligent in failing to provide what is known as the Janney, or some improved coupler which would obviate the necessity under any circumstances of going between the ends of cars in order to fasten one to another," said: "We think that the time has arrived when railroad companies should be required to attach such couplers  
\* \* \* on all passenger cars, \* \* \* and the new couplers have now become so cheap, as compared to the value of the lives and limbs of servants and passengers, that it is not unreasonable to require that they provide them on peril of answering for any damage which might have been obviated by their use." While the court declined, on account of the expense, to hold that the same was true at that time as to freight cars, it added: "Doubtless, the day will soon come" when it would be negligence not to attach them to freight as well as passenger cars. Congress so thought, and passed an act (27 Stat., 531) requiring self-couplers and air-brakes to be placed on all cars, freight as well as passenger, by January 1, 1898, and this had been complied with as to "over 60 per cent of the freight cars," besides nearly all passenger cars, operating in interstate commerce, by that date.

In *Witsell v. Railway Co.*, 120 N. C., 557, 27 S. E., 125, the above citation from *Mason v. Railroad Co.* was approved, and the court held that, while it was not negligent to fail to provide the latest improved appliances, a railroad company was liable for any injury caused by the failure to use approved appliances that are in general use. The rail-



road companies have of late procured from the Interstate Commerce Commission an extension, till January 1, 1900, of the time by which self-couplers should be placed upon all freight cars used in interstate service; but this was for their accommodation, and did not and could not relieve them from the legal liability incurred for injuries caused by their failure to provide "suitable appliances in general use" where the use of such would have prevented the injury. It only relieved them from the penalty provided in that act.

The eleventh annual report (1897) of the Interstate Commerce Commission, issued by authority of the United States Government, and based upon the reports of the railroad companies themselves, shows (page 80) that of railroad employees (leaving out passengers altogether), 1,861 were killed and 29,969 were wounded in the year ending June 30, 1896, being greater loss than in many a battle of historic importance. Of the trainmen, this report (page 130) shows that nearly 1 in 9 had been killed or wounded that year—total of over 17,000. Of these casualties, it is officially stated, 229 were killed and 8,457 were wounded in this single particular of coupling and uncoupling cars. As those figures are reported by the corporations themselves, it is not probable that they are overstated. If the railroads not reporting to the Interstate Commerce Commission (because not engaged in interstate carrying) should be added, the figures of killed and wounded from this cause would doubtless be largely increased. By these figures, for the last year reported, nearly 9,000 men had been killed and wounded in coupling and uncoupling cars. As the corporations, on their own motion or under compulsion of Congressional action and judicial decision, have adopted self-couplers on the passenger cars, and on "over 60 per cent" of the freight cars, it will be seen how many thousands of lives and bodies have been saved thereby; but that still nearly 9,000 men should in one year be killed or wounded "coupling and uncoupling" the freight cars which up to June 30, 1896, still requires that duty, for lack of self-couplers, is the highest proof of the duty of the courts to enforce liability for failure to provide self-couplers in every case where an injury occurs from that cause. That nearly 9,000 men should still be killed and wounded in one year for failure to furnish appliances which are so widely in use, and which would entirely prevent such accidents, points out the duty of the courts.

In *Whitsell's Case*, 120 N. C., at page 562, 27 S. E., at page 127, this court says: "If an appliance is such that the railroads should have it, the poverty of the company is no sufficient excuse for not having it." But in fact this defendant reports that this railroad has issued bonds and stocks for \$76,557 per mile. (N. C. R. R. Com. Report, 1896, at page 246.) This is presumed to have been paid in by its issuing the bonds and stocks, and hence it should be able to furnish appliances which will protect its employees from such injuries as this, and should be held liable for failure to do so, for the Interstate Commerce Commission report shows the self-couplers can be added for \$18 per mile. In a large majority of the States, as well as by the Federal Government, railroad commissions have been created to supervise and regulate the charges and the conduct of these corporations. The courts will be very derelict in their duty if they do not enforce justice in favor of employees as well as the public.

Six years ago this court said it would soon be negligence per se whenever an accident happened for lack of a self-coupler. Congress has enacted that self-couplers should be used. For their lack this plaintiff was injured. It is true, the defendant replies that the plaintiff remained



in its service knowing it did not have self-couplers. If that were a defense, no railroad company would ever be liable for failure to put in life-saving devices, and the need of bread would force employees to continue the annual sacrifice of thousands of men. But this is not the doctrine of "assumption of risk." That is a more reasonable doctrine, and is merely that when a particular machine is defective or injured, and the employee knowing it continues to use it, he assumes the risk. That doctrine has no application where the law requires the adoption of new devices to save life or limb (as self-couplers), and the employee, either ignorant of that fact, or expecting daily compliance with the law, continues in service with the appliances formerly in use. The defendant, after notice of six years from this court, and with notice of the act of Congress, and also from the general adoption of self-couplers, that it should use them, was guilty of negligence in failing to do so. The injury to the plaintiff could not have occurred save for the failure of the defendant to comply with its duty in this regard, and the court below should have held it liable to the plaintiff upon the defendant's own evidence.

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EMPLOYERS' LIABILITY—RIGHT OF ACTION BY ADMINISTRATOR FOR DEATH OF COAL MINER UNDER THE STATUTE—CONTRIBUTORY NEGLIGENCE AND ASSUMPTION OF RISK—*Boyd v. Brazil Block Coal Co.*, 50 *Northeastern Reporter*, page 368.—This action was prosecuted by John Boyd, as administrator of the estate of John W. Elliott, deceased, against the above-named coal company, by which Elliott was employed as a coal miner at the time he received injuries which resulted in his death. The cause of his injuries was alleged to be the violation by the company of the provisions of sections 7466 and 7472 of Burns' Revised Statutes of Indiana of 1894, and the action was brought under section 7473 of said statutes. Said sections read as follows:

SECTION 7466. The owner, operator, agent or lessee of any coal mine in this State shall keep a sufficient supply of timber at the mine, and the owner, operator, agent or lessee shall deliver all props, caps and timbers (of proper length) to the rooms of the workmen when needed and required, so that the workmen may at all times be able to properly secure the workings from caving in. And all persons operating coal mines in this State shall be required to place a blackboard, sufficiently large, with the number thereon, of every workman employed in said mine, at the most convenient place near the mine entrance; said board to be known as the timber board, to be used by the miners for registering thereon such timber for securing their working places as may be required from day to day.

SEC. 7472. The mining boss shall visit and examine every working place in the mine at least every alternate day while the miners of such place are or should be at work, and shall examine and see that each and every working place is properly secured by props or timber, and that safety in all respects is assured, and, when found unsafe, he shall order and direct that no person shall be permitted in an unsafe place, unless it be for the purpose of making it safe. He shall see that a sufficient supply of props, caps, and timber are always on hand at the miners' working places. He shall see, also, that all loose coal, slate, and



rock overhead wherein miners have to travel to and from their work are carefully secured.

SEC. 7473. For any injury to person or persons or property occasioned by any violation of this act, or any willful failure to comply with any of its provisions, a right of action against the owner, operator, agent or lessee shall accrue to the party injured for the direct injury sustained thereby, and in case of loss of life by reason of such violation, a right of action shall accrue to widow, children, or adopted children, or to the parents or parent, or to any other person or persons who were before such loss of life dependent for support on the person or persons so killed, for like recovery for damages for the injury sustained by reason of such loss of life or lives.

At a hearing of the case in the circuit court of Clay County, Ind., the defendant company demurred to each paragraph of the plaintiff's complaint, the demurrer was sustained, and judgment was rendered for the defendant. The plaintiff, Boyd, then appealed the case to the appellate court of the State, which rendered its decision April 28, 1898, and affirmed the judgment of the lower court.

In its opinion, which was delivered by Judge Comstock, the court used the following language:

The first question to be determined in this appeal is whether, under the statute, the personal representative of the deceased has any right of action. Counsel for appellee [the coal company] insist that he has not, and for that reason, if for no other, the demurrer was by the lower court properly sustained to each paragraph of the complaint. The question is properly raised by the demurrer for want of facts. Under our statute [sec. 7473], unless otherwise provided, all suits must be brought in the name of the real party in interest. The estate of the deceased can have no interest in the provision made by the statute. It is not a claim due the estate. The right of action is given to the widow, and it is not vested in any other than the beneficiaries therein named. When a new right or proceeding is created by statute, and a mode prescribed for enforcing it, that mode must be pursued to the exclusion of all others. We think the right of action is limited to the beneficiaries named in the act, and for this reason the judgment of the lower court must be affirmed.

The failure of appellee to comply with either section 7466 or section 7472 was negligence per se. The mining boss, under these statutes, is charged with a duty owing by the master of securing the servant a safe place in which to work, and is for that reason a vice principal standing in the relation of master. His negligence is the negligence of the master. Each of these paragraphs [of the plaintiff's complaint] charges an omission of duty contributing negligence upon the part of appellee; that the death of Elliott resulted, therefore, without any fault on his part. We understand the learned counsel for appellee to concede in his brief that these paragraphs sufficiently charge negligence upon the part of appellee, but that the rules of pleading require that they should go further, and aver that the servant was free from fault contributing to his injury, and that he did not assume the risk, i. e., that he was ignorant of the danger, and that the master had knowledge of it, or, in other words, that the case made must be of unmixed negligence on the one hand and freedom from contributory negligence on the other.

Appellee's counsel contend that the decedent knew that the roof was unsupported; that the business of mining coal is one of great peril;



that the usual risks of the work are assumed by the miner; that the employer is not an insurer of the safety of his employees; he is liable when he neglects a duty by reason of which injury results, but not if the injury was occasioned by a defect in the working place which was as well known to the employee as to the employer, or when the defect is apparent, or when the risk is assumed; that in the case at bar death of the employee was occasioned by the falling in of the roof; that the roof was under the immediate supervision of the miner; he knew there were no props; that the law requires the master to keep on hand a supply of props, and deliver them at the working place of the miner when he demands them; if the master neglects to do this, the miner knows of such neglect, and if, in the presence of an obvious defect, he voluntarily continues in the service without any promises on the part of the master to remedy the defect, he assumes the risk; that neither paragraph charges that the master promised to furnish props; that the miner voluntarily assumed a known danger. The common-law rule that the servant assumes the risks incident to obvious danger is based upon the legal maxim, "Volenti non fit injuria." The law holds that when a servant knows of the danger incident to a particular calling he has taken such danger into consideration in fixing his compensation. This is true as to all dangers that are ordinarily incident to a particular calling, but it is not true in all cases of known danger which are not ordinarily incident to the business in which he is employed. The risks a servant assumes on entering upon the employment of a miner are those only which occur after the due performance of the employer of those duties which the law imposes upon him. We believe, however, that the maxim, "Volenti non fit injuria," or the doctrine of the assumption of risk, does not apply to a breach of a statutory duty imposed on the master; and the continuing of the servant in the employ of the master with knowledge of such a breach of such duty will not prevent recovery for an injury suffered by reason of such breach.

We believe it was not intended that any neglect, however slight, upon the part of the laborer, contributing to his injury, should exempt the employer from liability growing out of the willful omission of a duty imposed by law. The employer may cease to operate his mine, or he may, without hardship, comply with the statutory requirements; but to the laborer cessation from work may mean the want of necessities of life by those dependent upon him for support. Conditions which require the miner to continue to labor when, by inadvertence, he may receive injury, should not exempt his employer from the consequences of his willful violation of the law.

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MECHANICS' LIENS—CONSTRUCTION OF STATUTE—"LABORERS" AND "EMPLOYEES"—*Malcomson v. Wappoo Mills*, 86 *Federal Reporter*, page 192.—In this case, which was heard in the United States circuit court for the district of South Carolina, one of the questions raised was the interpretation of act No. 316 of the acts of 1897 of South Carolina, entitled "An act to provide for laborer's lien." (22 S. C. Statutes at Large, 502.) The first section of the act reads as follows:

From and after the passage and approval of this act all employees in factories, mines, mills, distilleries, and all and every kind of manufac-



turing establishments in this State shall have a lien upon all the output of the factory, mine, mill, distillery, or other manufacturing establishments in which they may be employed, either by the day or month, whether the contract be in writing or not, to the extent of such salary or wages as may be due and owing to them under the terms of their contract with their employer, such lien to take precedence over any and all other liens, except the lien for municipal, State, and county taxes.

The decision of the circuit court was rendered March 21, 1898, and, upon the point mentioned above, the opinion of said court, which was delivered by Circuit Judge Simonton, reads as follows:

The laborers and employees claim the lien for wages secured under the act of assembly of South Carolina of 1897. (22 St. at Large, 502.) There is no question that all who come within this term, "laborers," are by the express language of the act entitled to a lien for the wages due. These are from the 1st to 15th of October—one half month. This is not denied. But it appears that in the list is the name of Mr. Lawton, who was the superintendent of the mining operations, and of Mr. Titsell, who was assistant in the office as bookkeeper. Are they within the protection of the act? What was the intent of this act? The constitution of the State of South Carolina has rendered unnecessary much of the research formerly needed in order to discover the intent of a statute. The State constitution gives a key to the statute, and that is its title. "Every act or resolution having the force of law shall relate to but one subject, and that shall be expressed in its title." (Art. 3, § 17.) We look, then, to the title of the act, and the enactment must express the same purpose as the title, or the act is void. The title of this act is, "An act to provide for laborer's lien." The body of the act gives to all employees in factories, mines, and so forth, a lien, whether they be employed either by the day or month, whether the contract be in writing or not, to the extent of the salary or wages that may be due. The word "laborer" does not appear in the body of the act. To sustain the act, and that is a primary law of interpretation ("Ut res magis valeat quam pereat"), the word "laborers" must be synonymous with the word "employees;" and, as the word "laborers" is used in the title, the word "employees," used in the body of the act, must be so restricted as to mean such employees as are laborers. This being so, neither the superintendent nor the bookkeeper comes within this term.

## DECISIONS UNDER COMMON LAW.

EMPLOYEES' CLAIM FOR DAMAGES—COMPROMISE AND SETTLEMENT—CONSTRUCTION—*Phares v. Lake Shore and Michigan Southern Railway Co.*, 50 *Northeastern Reporter*, page 306.—This action, brought by William H. Phares against the above named railway company, was heard in the circuit court of Elkhart County, Ind., and a judgment was rendered in favor of the company and the plaintiff's right to damages was denied. Phares appealed the case to the appellate court of the State, which rendered its decision April 26, 1898, and affirmed the judgment of the lower court.



The facts of the case are sufficiently stated in the opinion of the appellate court, which was delivered by Judge Black, and reads in part as follows:

The court rendered judgment for the defendant upon a special verdict in an action brought by the appellant against the appellee. The controlling facts of the lengthy special verdict were as follows: The railroad company had two classes of freight brakemen, one called "regular" freight brakemen and the other "extra" freight brakemen. The appellant entered the service of the appellee on the 6th day of September, 1892, and during all the time of his service was an extra freight brakeman. He suffered a personal injury while in such service on the 29th of October, 1892. On the 25th of March, 1893, the appellant signed a writing, referred to in the special verdict as a proposition, and as a written option, and as an offer of compromise, as follows:

"Elkhart, Indiana, March 25th, 1893. For and in consideration of the sum of one dollar to me in hand this day paid by the Lake Shore and Michigan Southern Railway Company, I hereby stipulate and agree to and with the same company that I will accept from it the sum of three hundred dollars, and, further, that I am to remain in the service of said company as brakeman as long as I want to, providing my work shall prove satisfactory to said company, as full settlement and satisfaction of all claims and demands of every kind, nature, and description which I have or may be entitled to have against said company by reason of personal injuries sustained by me while a freight brakeman of said company at or near Dune Park station, in the State of Indiana, on the 29th day of October, 1892; and in consideration thereof to execute and deliver to said company a full, perfect, and complete release and satisfaction, provided the same is paid to me within forty-five days from the date hereof. W. H. Phares. [Seal.] Witnesses: C. A. Theis. C. C. Needham."

"Elkhart, Indiana, March 25th, 1893. I, the aforesaid W. H. Phares, do hereby acknowledge receipt from the Lake Shore and Michigan Southern Railway Company, by the hands of C. C. Needham, its agent, the said sum of one dollar mentioned in the above agreement. W. H. Phares. Witnesses: C. A. Theis, C. C. Needham."

On the 10th day of May, 1893, the appellant signed a writing as follows:

"Form No. 1284. Whereas on the 29th day of October, A. D. 1892, the undersigned, while in the employ of the Lake Shore and Michigan Southern Railway Company as freight brakeman, received certain injuries as follows, to wit: While uncoupling engine had his left hand caught between pin and end sill of car C. L. & W., 3718, one finger amputated, and another bruised, while in the discharge of his duties, at or near Dune Park Station, in the State of Indiana; and whereas I, the said William H. Phares, believe that my said injuries are the result of the negligence of said railway company, its officers, agents, and employees; and whereas the said railway company denies any and all negligence on the part of itself, its officers, agents, and employees, and denies any and all liability to me for damages for the injuries so as aforesaid by me sustained, but by reason of an offer of compromise made by me the said L. S. and M. S. Ry. Co., for the purpose of avoiding litigation, to receive and accept the sum of three hundred dollars in full accord and satisfaction for all claims for damages which I may or might have for the injuries aforesaid, have paid to me the sum of three hundred dollars, and agree to reemploy me as a freight brakeman



for such time only as may be satisfactory to said company. Now, therefore, in consideration of the premises, and the payment to me of the aforesaid sum of three hundred dollars, the receipt whereof I do hereby acknowledge, I do hereby release and forever discharge the said Lake Shore and Michigan Southern Railway Company and all other parties in interest of and from all actions, suits, claims, and demands for or on account of or arising from the injuries so as aforesaid received, and every and all results hereafter arising therefrom. Witness my hand and seal, at Elkhart, Indiana, this 10th day of May, A. D. 1893. William H. Phares. [Seal.] Signed, sealed, and delivered in presence of C. C. Needham, J. W. Gainard."

"Lake Shore and Michigan Southern Railway Company to William H. Phares, Dr. Issued April 28, 1893,  $\frac{c}{o}$  A. B. Newell, Chicago, Ill. For settlement in full of all claims and demands to date, especially for personal injuries sustained at Dune Park, Indiana, October 29th, 1892, as per attached form G. S. 1284, \$300.00.

"Received, Elkhart, May 10th, 1893, of the Lake Shore and Michigan Southern Ry. Co., three hundred dollars, in full of the above account. \$300.00. William H. Phares.

"Correct: W. H. Cahniff, gen. sup't.

"Audited: C. P. Lehand, auditor.

"Approved: P. P. Wright, ass't gen'l manager."

On the 25th of March, 1893, and during the whole of that month, and on the 10th day of May, 1893, and during the whole of that month, the appellant was employed by the appellee as an extra freight brakeman; and from the time of his first employment down to the 26th of June, 1894, whenever he was called upon to do work, he was put upon the appellee's pay roll of extra freight brakemen, and he received pay as such. At the date last mentioned the appellee put in force a seniority list of all brakemen, whereby those in the appellee's service for the shortest time were put upon the list of extra freight brakemen, and the youngest of the extra freight brakemen in the service, to the number of 10, were temporarily laid off until business should revive. From that date to the commencement of this action the appellant's name was kept upon the list of the extra freight brakemen who were so laid off, to be called into service as extra freight brakemen, according to their seniority of service, whenever business should revive so as to give them active employment.

While the proposition for compromise given by the appellant to the claim agent on the 25th of March, 1893, contained a stipulation on the part of the appellant that "I am to remain in the service of said company as brakeman as long as I want to, providing my work shall prove satisfactory to said company," the written instrument containing the release sent by the appellee through the claim agent in response to the appellant's proposition, and containing a reference thereto, to be signed by the appellant, and by him signed, bearing date May 10th, 1893, did not contain such a stipulation or provision, but, instead of it, provided that the appellee agreed "to reemploy me as a freight brakeman for such time only as may be satisfactory to said company." The claim agent agreed with the appellant that the contract releasing the appellee should contain such a provision concerning the employment of the appellant as that contained in the appellant's proposition; but when the release came from the general officers to the claim agent, to be signed by the appellant, and the money consideration was paid, and the release was finally executed, it did not correspond with appellant's proposition and the claim agent's promise. There is no finding of any



mistake or of fraud or fraudulent conduct, no indication that the appellant did not know the contents of the papers which he signed, dated the 10th of May, 1893, which is the date throughout the verdict referred to as the time of the acceptance of the offer of compromise by the appellee, and as the date of the settlement between the parties. The contents of this instrument of release clearly indicated to the appellant that his proposition was not accepted as to all its stipulations by the appellee, and that it would settle upon different terms as set forth in the form of release sent by the general officers. As to the final agreement of settlement, there can be no doubt that it was contained in the paper dated the 10th of May, 1893. So far as it differed from the written proposition of the appellant or the oral promise of the claim agent, the appellant must be deemed to have consented to such variance when, without fraud or imposition, which can not be presumed, he accepted the money, and attached his signature. No ground for the re-formation of the contract appears, if such had been the purpose of the action. The appellant was paid a specified sum for his services rendered after the compromise. They were all rendered in the capacity of an extra freight brakeman. It does not appear that this sum was not full payment for the services actually rendered. If he had been employed as a regular freight brakeman, he would have earned a larger sum. But the appellant had been employed only as an extra freight brakeman up to the time of his injury, and he served and was paid in that capacity after the compromise. The contract to reemploy him as a freight brakeman is properly construed by considering the nature of his previous employment, and by looking to the manner in which the parties freely treated the contract, and acted upon it, the appellant serving as an extra, and accepting pay as such. The judgment is affirmed.

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EMPLOYERS' LIABILITY—ASSUMPTION OF RISK BY EMPLOYEE—DUTY OF MASTER—*Disano v. New England Steam Brick Co.*, 40 *Atlantic Reporter*, page 7.—This action was brought by Giovanni Disano against the above-named brick company in the supreme court of the State of Rhode Island to recover damages for injuries received while in the employ of said company. He alleged in his declaration that he was shoveling clay into a certain machine used in making brick when he was injured; that in front of said machine was a large opening, directly under which and inside of said opening were two rolls; that he was obliged to pass said opening in shoveling the clay; that said opening was dangerous as it was unprotected by any railing, and the floor around it was wet and slippery; that this fact, as to the dangerous condition of the opening, was known to the company; that it was the duty of said company to have protected said opening, but that the company having disregarded said duty he, the plaintiff, while performing his duty and in the exercise of due care, fell into the opening and was seriously injured. The company demurred to the declaration on the general ground that the plaintiff's own statement showed that he had assumed the risk of his employment. After a hearing the court ren-



dered its decision April 7, 1898, and sustained the demurrer, rendering judgment for the brick company.

The opinion of the court, delivered by Judge Tillinghast, contains the following language:

We think the demurrer should be sustained. The danger from the opening complained of was clearly an obvious one, and was as well known to the plaintiff as to the defendant; and by voluntarily consenting to work in the place described, knowing and appreciating the danger, he must be held to have assumed the risk incident to the employment. Nor does the plaintiff allege that he had ever complained to his employer with reference to the unprotected machine in question, or made any objection to using the same in its then present condition. The case stated, then, at the most, is that of a servant voluntarily continuing in an employment involving obvious danger of personal injury, which the master might have avoided, but did not; and in such a case, in the absence of some circumstance calling for special care on the part of the master, such, for instance, as the youth, inexperience, or want of knowledge of the machine on the part of the servant, it is well settled that he takes upon himself all of the ordinary and obvious risks incident to the employment.

But the plaintiff contends that where the duties of the servant are such as to cause his attention to be diverted from the defect and danger and the defect is unnecessarily dangerous, the master may not be relieved from responsibility for the consequences caused by such defect. Just what is meant by "unnecessarily dangerous" in this connection we do not know. If the counsel means that a master is bound to furnish a place for his servant to work in, on a machine which he is to operate, which shall be as free from danger as it can be made, the contention is clearly untenable; for he is only called upon to furnish a reasonably safe place and reasonably safe appliances. If, on the other hand, counsel means that a master's duty in regard to the furnishing safe appliances for his servants is a relative one, that is, that where a very dangerous machine is to be operated he should take greater care to protect the servant from injury than where the machine is comparatively free from danger, then we agree with the contention. But, whether a machine is so constructed or located as to be unnecessarily dangerous or not, the law of assumed risk would ordinarily be the same, provided the actual danger was fully known to and appreciated by the servant.

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EMPLOYERS' LIABILITY—DUTIES OF THE EMPLOYER—NEGLIGENCE, ETC.—*Murphy v. Hughes et al.*, 40 *Atlantic Reporter*, page 187.—Action heard in the superior court at Newcastle, State of Delaware. This was a jury trial, and the charge of Judge Pennewill, from which the quotation below is taken, not only clearly states the law of the State applicable to the case, but sufficiently shows the facts therein:

In this case the plaintiff, Nicholas Murphy, seeks to recover from Eugene Hughes, Charles Hughes, and Anson Bangs, trading as Hughes Bros. & Bangs, the defendants, damages for personal injuries sustained



by him in April, 1897, and which he alleges were caused by the negligence of the defendants. The plaintiff charges among other things, that the defendants were negligent in the employment of an incompetent servant as engineer, and that, by reason of such incompetency, he (the said plaintiff), who was at the time acting as an employee or servant of the defendants, was injured as alleged in his declaration. The defendants contend that they were not guilty of any negligence; that they exercised all reasonable and proper care; and that the accident was caused by the contributory negligence of the plaintiff; thus denying all liability whatsoever for the injury to the plaintiff.

With the facts in the case, gentlemen, the court have nothing to do, for of them you are the sole judges. The evidence is for your consideration and determination, after applying thereto the law as the court shall declare it to you.

Negligence has been defined to be the want of ordinary care; that is, the want of such care as a reasonably prudent and careful man would exercise under the circumstances. What constitutes negligence is a question of law for the court, but whether negligence in fact exists is a question of fact for your determination from the testimony in the case.

It is a rule of law that, when a servant enters into the employ of another, he assumes the risks ordinarily incident to the business, and is presumed to have contracted with reference to all the hazards and risks incident to the employment; that the employer is not bound to employ the latest or best machinery, but only to see that what he does employ is safe and suitable; and also that he is not the guarantor of their safety or sufficiency. Yet it is unquestionably the law, and fully recognized by the courts of this State, that it is the duty of the master to exercise due care and caution in selecting competent and trustworthy coworkers, as well as to furnish his servants with reasonably safe machinery and appliances with which to work; and it is such a duty that a master can not delegate to an agent, so as to escape responsibility for the negligent acts of said agent. Such a duty the master owes to his servant; and, if the latter is injured because of the failure of the former to exercise such care, the master would be liable. This court has also held that it is the duty of the master to make and promulgate proper rules for the government of his servants and business whenever it is so large or complicated as to make his personal supervision impracticable. It is, however, always a question for the jury to determine whether such rules are sufficient for the purpose. One of the tests of such sufficiency is that they have been in force for a considerable length of time, and in such trial have accomplished the purpose sought. The presumption of law is in favor of their sufficiency on a question of negligence. What would be due care and caution on the part of the master in this regard would depend largely upon the nature of the employment for which the coworker was selected, because, the more dangerous and hazardous the employment, the greater the care and caution required on the part of the master in the selection of the person to perform it. Ordinary care would mean that degree of diligence and precaution which the exigencies of the particular service reasonably require.

It is not necessary that the master should have actual knowledge of the incompetency of the coworker he employs; it is sufficient if, by the exercise of due care and caution, he could have known it; for it is the duty of the master, so far as he is able by the exercise of due diligence so to do, to employ competent servants. Knowledge of the person having charge of an incompetent servant, with power to discharge him,



that such servant is incompetent, is, in law, the knowledge of the employer, because the person having such charge and power is the agent of the master, and such notice to him would be regarded as notice to his principal. It is, of course, the duty of the master to discharge an incompetent servant if he obtains knowledge of his incompetency, or, by the exercise of due care and diligence, he could have obtained such knowledge. But, on the other hand, "when the master uses due diligence in the selection of capable and trustworthy servants, and furnishes them with suitable means to perform the service, he is not answerable to one of them for an injury received by him in consequence of the carelessness of another while both are engaged in the same service." (McKinney, Fel. Serv., § 9.)

While the master is bound, as we have already said, to exercise due care and diligence in behalf of his servant, including that of the selection and retention of proper and competent coemployees and reasonably safe machinery and appliances, and while the servant is entitled to assume that the master has done his duty in this regard, and is not chargeable with notice of the incompetency of his fellow-servant until he has notice thereof by information or by circumstances reasonably sufficient to give it, as was clearly laid down by the court in the case of *Parvis v. Railroad Co.*, 8 Houst., 446, 17 Atl., 702, "it is well settled as a principle of law that the plaintiff was also bound at the same time to use ordinary care, prudence, and diligence to avoid the accident and injury; that is to say, he is bound to use such care, prudence, and diligence as a reasonably prudent man, under the peculiar circumstances of the case, would exercise to preserve himself from being injured." This simply means that if the plaintiff himself was guilty of contributory negligence, which contributory negligence had a casual connection between the defendants' negligence and the injury, he can not recover, because the law does not permit anyone to recover damages from another for an injury if his own negligence has contributed thereto, or where, by the exercise of reasonable care, he could have avoided it.

EMPLOYERS' LIABILITY—MASTER'S DUTY TO EMPLOYEE—FELLOW-SERVANTS, ETC.—*Edward Hines Lumber Co. v. Ligas*, 50 *North-eastern Reporter*, page 225.—Judgment was rendered in the appellate court for the first district of the State of Illinois in favor of Frank Ligas, in a suit brought by him, for the use of one Leo Roeder, against the above-named lumber company to recover damages for personal injuries sustained by Roeder while in the employ of said company. The company appealed the case to the supreme court of the State, which rendered its decision April 21, 1898, and sustained the decision of the appellate court. The facts in the case were as follows: Roeder was ordered by the appellant's foreman to ascend to a scaffold built upon a pile of lumber for the purpose of handing down lumber therefrom. He climbed up on the scaffold, and while standing upon one of the boards projecting from the pile as a support to the scaffold it broke and he was precipitated to the ground and injured. The board which broke was defective by reason of a knot therein, and had been placed



as a support to the scaffold by employees of the company who erected the pile of lumber, Roeder having nothing to do with the same.

The opinion of the supreme court was delivered by Judge Magruder, and in the course of the same he uses the following language:

A master is bound to the exercise of reasonable care with reference to all the appliances of his business, and is bound to protect his servants from injury therefrom by reason of latent or unseen defects, so far as such care can do so; but the master is not an insurer to his servant against injury, and is only chargeable for damage happening to his servant from defective appliances when negligence can properly be imputed to him. The servant is bound to see for himself such risks and hazards as are patent to observation, and is bound to exercise in the discovery of risks and hazards such opportunities for observation, skill, and judgment as he possesses; but, when the danger from a defective appliance is not patent, the servant has a right to presume that the master has discharged his duty, and that the appliances of the business are reasonably safe and free from hazard. The duty of the master to exercise reasonable care that the machinery, appliances, and place to work which he supplies to the servant are reasonably safe is a personal one, and he can not, by delegating to another, absolve himself from liability for its nonperformance. Where a servant is injured by the negligence of a fellow-servant of the common master, the master is not liable. In this State, in order that one servant should be the fellow-servant of another, their duties must be such as to bring them into habitual association, so that they may exercise a mutual influence upon each other promotive of proper caution. As in very many instances, and, as regards corporations, in all cases, the master, through the instrumentality of agents, supplies to the servant machinery, tools, and appliances, and provides a place for him to work, much discussion has arisen, in cases of accidents arising from defective machinery or appliances, as to whether the agent of the master by whom such machinery or appliance was supplied was the fellow-servant of the person injured, it being insisted that if such was the case the master should not be held liable. In many instances the court, upon its discussion of the subject, has come to the conclusion that the agent supplying the machinery or appliance was not a fellow-servant of the person injured, within the rule by which the relation of fellow servants is determined.

There is a certain incongruity in holding that the duty to exercise reasonable care in providing reasonably safe appliances and machinery is a personal one, which can not be delegated, and at the same time holding that, if the failure to exercise such reasonable care was the neglect of a fellow-servant of the party injured, then the master is not liable; and it seems more correct to say that agents who are charged with the duty of supplying safe machinery and appliances are not, when so doing, in the true sense, to be regarded as fellow-servants of those who are engaged in the use of the same.

In *Wood, Master and Servant*, it is said that in an action like the present the servant, in order to recover for defects in the appliances of the business, is called upon to establish three propositions: First, that the appliance was defective; second, that the master had notice thereof, or knowledge, or ought to have had; third, that the servant did not know of the defect, and had not means of knowing equal to those of the master. In the present case the jury has found all of those propositions for appellee.



Upon an examination of the record we can not say that the jury was wrong in finding, as it did, that the defect in the board which broke was not so patent that appellee should have taken notice of it, or that, when told to make use of the same, appellee failed to exercise ordinary care by not examining the board to see if it was defective. Under the rule that the servant has a right to presume that the master has discharged his duty of exercising reasonable care to see that the appliances supplied are reasonably safe for the use to which they are to be put, the servant is not bound to look for defects which are not patent to a man of his intelligence, knowledge, and experience. We can not say that the jury was wrong in refusing to find that the opportunity of appellee for ascertaining the defect in this board was equal to that of the appellant. The board was selected by appellant, and put in its place, to be used as a part of the scaffold, by his agents, who, when they did this, were not, in so doing, fellow-servants of appellee. For the reasons stated the judgment of the appellate court is affirmed.

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EMPLOYERS' LIABILITY—RAILROAD COMPANIES—FELLOW-SERVANTS—*Walker et al. v. Gillett*, 52 *Pacific Reporter*, page 442.—Action was brought in the district court of Johnson County, Kansas, by Fred E. Gillett against Aldace F. Walker and another, sole receivers of the Atchison, Topeka and Santa Fe Railroad Company, to recover damages for injuries received while employed as a brakeman on said railroad. Judgment was rendered for the plaintiff, Gillett, and the defendants carried the case on writ of error to the supreme court of the State, which rendered its decision March 5, 1898, and affirmed the judgment of the lower court. The plaintiff's petition stated that the plaintiff was a brakeman in the employ of the defendants on a freight train under a conductor named Deitrick, who had full charge and control of the train, and that, owing to the negligence of said conductor, he received an injury resulting in the amputation of his left leg above the knee and the crippling of his right foot. The defendants' answer stated, among other things, that the injury happened in the Territory of Oklahoma, where the common law was in full force, and that the negligence, if any, was that of a fellow-servant (the conductor), for which, under the laws of Oklahoma, the defendants were not liable. Upon this point the opinion of the supreme court, which was delivered by Judge Allen, reads as follows:

The question most discussed is whether the conductor and the plaintiff were fellow-servants, within the meaning of the common-law rule obtaining in Oklahoma, which denies the plaintiff a right of recovery for an injury resulting from the negligence of a fellow-servant. Counsel for the plaintiffs in error [the receivers] contend that the test as to who are fellow-servants is merely whether they are engaged in the same line of service for the same master; that the only difference in the employment of the conductor and the plaintiff was that the scope of that of the former was greater than that of the latter, but that the master rests under no greater duty to properly perform the duties of



the conductor than those of the brakeman. It must be conceded that the courts have indulged in much refinement of reasoning on the question of who are fellow-servants, and that the grounds on which many decisions have been based on either side of the question are not altogether satisfactory. The precise question in this case is whether the master is liable to a brakeman for injuries occasioned by the negligence of the conductor of the train on which he was employed, where the conductor had full charge of the movements of the train and the brakeman was acting under his orders. In the case of a railway corporation there is no personal master. The stockholders and bondholders have the property interests, but no direct management of the property. Their interests are looked after by a board of directors, which, in turn, employs general officers of greater or less authority, who have the direct and personal supervision of the operation of the property. Where the general power to manage and command is given to one, and the duty of the others is merely to execute and obey, he who directs stands in the place of the principal, and the principal must respond to those under him for his misconduct. This must be so, else it is impossible to see how at common law a railroad corporation can ever be responsible to any of its employees for the misconduct of any officer occupying a superior station in the same line of service; for all are servants, and the master is only an intangible corporate entity.

Where the injured employee and the one whose negligence occasions the injury are engaged in different branches of corporate service, it seems to be now quite generally held that the common-law rule exempting the master from liability does not apply. It may be that a mere matter of difference in the grade of service of the employees is not controlling, but, where one is under the direct and personal supervision and control of the other, it does control.

Whoever has full and unrestricted authority to direct and command is a vice principal, and for his negligence the master must respond. The conductor being the representative of the receivers in the management of the train, they must respond in damages for his negligence. The judgment is affirmed.

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EMPLOYERS' LIABILITY—RAILROAD COMPANIES—IMPRACTICABLE RULES—*Holmes v. Southern Pacific Co.*, 52 *Pacific Reporter*, page 652.—Suit was brought in the superior court of the city and county of San Francisco, Cal., by Lillian Holmes, administratrix of the estate of William E. Holmes, deceased, to recover damages for the death of the decedent. The evidence showed that Holmes, while in the employ of the company above named and while engaged in the line of his duty in coupling some cars, was caught between them and crushed so as to cause his death. From a judgment for the plaintiff and an order denying a new trial the defendant company appealed to the supreme court of the State, which rendered its decision March 24, 1898, and reversed the judgment of the superior court.

Upon one point of some interest the opinion of the supreme court, which was delivered by Judge Temple, reads as follows:

Counsel have argued at considerable length the effect of a certain rule made by defendant, and to which the attention of the deceased



was called at the time of his employment. Rule 215, among other things, provides that "employees are enjoined before coupling cars or engines to examine and know the kind and condition of the drawhead, drawbar, link, and coupling apparatus. \* \* \* Sufficient time is allowed and may be taken by employees in all cases to make the examination required. Coupling by hand in all cases is strictly forbidden when a stick or proper implement can be used to guide the link," etc. Upon the trial plaintiff introduced testimony to the effect that the rule had been not only habitually, but universally, disregarded; and also the following, brought out on cross-examination: "Q. Do you know anything about the use of a stick to guide the link into the drawbar?—A. They say some people use them, but I would laugh at them if I saw them using them. Q. It is used for the purpose of coupling it from between the cars and guiding the link into the place instead of using the hand?—A. You might think so, but it is utterly impossible. Q. What is it used for?—A. They cannot make a coupling; they might say it in the books, or any book, but they can not do it. Q. So far as your experience is concerned?—A. Yes, or anyone else." Upon this the defendant asked the court to charge the jury, as matter of law, "that the rule was reasonable, and that employees have no right to judge of the reasonableness of the rule, but must obey it as long as they remain in the employ of the company, and the fact that the rule may be impracticable and not observed does not excuse the employee who is injured by its nonobservance from negligence. Therefore, if you believe from the evidence that if William E. Holmes had followed the rule of the company and used a stick to make the couplings he would not have been injured, then the mere fact that the rule was impracticable or not observed will not excuse the negligence of Holmes in not following the rule." The court refused this instruction, and the ruling is assigned as error. If the rule was utterly impracticable, or rendered so, by the mode and conditions under which service was required, and the servant is injured because not following an impracticable rule, and can not, therefore, maintain an action for damages, then the rule is plainly not for the protection of the servant, but of the employer. It is a provision relieving the employer from the obligations imposed upon him by law, to use ordinary diligence in furnishing safe appliances with which to work and safe conditions for the performance of the service. So far as the rule has that effect, it is against public policy and void. The employer is conclusively presumed to know how the service is habitually performed. Where the usual mode is departed from, the presumption would not prevail; and to make such a rule as this of any avail, even if not otherwise objectionable, the work must be so conducted that the servant may take the precautions prescribed, otherwise it is only a provision against the liability of the employer, and not a rule designed for the protection of the servant. The court, therefore, did not err in refusing the instructions asked.

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EMPLOYERS' LIABILITY—RAILROAD COMPANIES—INSPECTION OF FOREIGN CARS—ASSUMPTION OF RISK BY EMPLOYEE—*Texas and Pacific Railway Co. v. Archibald*, 18 *Supreme Court Reporter*, page 777.—This suit, commenced in a State court, was removed to the circuit court of the United States for the eastern district of Texas. The suit



was brought by Archibald, the plaintiff, to recover damages from the above-named railway company for an injury received while engaged as a switchman in its employ. The primary cause of the plaintiff's injury appeared to be the defective condition of two cars belonging to the Cotton Belt Ry. Co. The tracks of the Texas and Pacific Ry. Co. and of the Cotton Belt Ry. Co. both entered the city of Shreveport, La., where the accident occurred, and were connected. The above-mentioned cars were turned over to the Texas Pacific Ry. Co. to be filled with oil, and then to be returned to the Cotton Belt Ry. Co. On trial by a jury in the circuit court there was a verdict for Archibald, and the judgment entered by the court on said verdict was subsequently affirmed by the United States circuit court of appeals for the fifth circuit, to which the case had been carried on a writ of error. The railway company then brought the case on writ of error before the United States Supreme Court, which rendered its decision May 23, 1898, and affirmed the judgments of the lower courts.

From the opinion of the Supreme Court, which was delivered by Mr. Justice White, the following is quoted:

That it was the duty of the railway company to use reasonable care to see that the cars employed on its road were in good order and fit for the purposes for which they were intended, and that its employees had a right to rely upon this being the case, is too well settled to require anything but mere statement. That this duty of a railroad, as regards the cars owned by it, exists also as to cars of other railroads received by it, sometimes designated as foreign cars, is also settled. (Railroad Co. v. Mackey, 157 U. S., 87, 15 Sup. Ct., 491.) Said the court in that case: "Sound reason and public policy concur in sustaining the principle that a railroad company is under a legal duty not to expose its employees to dangers arising from such defects in foreign cars as may be discovered by reasonable inspection before such cars are admitted to its train." This general duty of reasonable care as to the safety of its appliances resting on the railroad, the instructions in question proposed to limit by confining its performance solely to such foreign cars as are received by a railroad "for the purpose of being hauled over its own road;" in other words, the proposition is that, where a car is received by a railroad only for the purpose of being locally handled, the railway, as to such local business, is dispensed from all duty of looking after the condition of the cars by it used, and may, with complete legal impunity, submit its employees to the risk arising from its neglect of duty. To this length the proposition plainly goes, as is shown by its context, and is additionally illustrated by the argument at bar.

The argument wants foundation in reason, and is unsupported by any authority in reason, because, as the duty of the company to use reasonable diligence to furnish safe appliances is ever present, and applies to its entire business, it is beyond reason to attempt by a purely arbitrary distinction to take a particular part of the business of the company out of the operation of the general rule, and thereby to exempt it, as to the business so separated, from any obligation to observe reasonable precautions to furnish appliances which are in good condition. Indeed, the argument by which the proposition is supported is self-destructive, since it admits the general duty of the employer just stated, and affords no reason whatever for the distinction by which it is sought



to take the case in hand out of its operation. The contention is without support of authority, since the cases cited to sustain it are directly to the contrary.

The theory upon which in the argument at bar it is claimed that the cases cited overthrow the very doctrine which in truth they announce is based upon the use of the words in the Mackey Case, "admitted into its train." Taking this as a premise, it is said the duty of a railroad to exercise reasonable diligence to furnish safe appliances exists only as to cars "admitted into its train"—that is, cars which it receives and transports in one of its trains—and does not obtain as to cars which it receives and handles in its yards for local purposes only. It is obvious from a mere casual reading of both the Mackey Case and the New York cases relied upon that the duty on the part of the railroad which they inculcate applies to all cars used by the road in its business.

The elementary rule is that it is the duty of the employer to furnish appliances free from defects discoverable by the exercise of ordinary care, and that the employee has a right to rely upon this duty being performed; and that while, in entering the employment, he assumes the ordinary risks incident to the business, he does not assume the risk arising from the neglect of the employer to perform the positive duty owing to the employee with respect to appliances furnished. An exception to this general rule is well established, which holds that, where an employee receives for use a defective appliance, and with knowledge of the defect continues to use it without notice to the employer, he can not recover for an injury resulting from the defective appliance thus voluntarily and negligently used. But no reason can be found for, and no authority exists, supporting the contention that an employee, either from his knowledge of the employer's methods of business or from a failure to use ordinary care to ascertain such methods, subjects himself to the risks of appliances being furnished which contain defects that might have been discovered by reasonable inspection. The employer, on the one hand, may rely on the fact that his employee assumes the risks usually incident to the employment. The employee, on the other, has the right to rest on the assumption that appliances furnished are free from defects discoverable by proper inspection, and is not submitted to the danger of using appliances containing such defects because of his knowledge of the general methods adopted by the employer in carrying on his business, or because by ordinary care he might have known of the methods, and inferred therefrom that danger of unsafe appliances might arise. The employee is not compelled to pass judgment on the employer's methods of business, or to conclude as to their adequacy. He has a right to assume that the employer will use reasonable care to make the appliances safe, and to deal with those furnished relying on that fact, subject, of course, to the exception which we have already stated, by which, where an appliance is furnished an employee, in which there exists a defect known to him, or plainly observable by him, he can not recover for an injury caused by such defective appliance, if, with the knowledge above stated, he negligently continues to use it. In assuming the risks of the particular service in which he engages, the employee may legally assume that the employer, by whatever rule he elects to conduct his business, will fulfill his legal duty by making reasonable efforts to furnish appliances reasonably safe for the purposes for which they are intended; and, while this does not justify an employee in using an appliance which he knows to be defective, or relieve him from observing patent defects therein, it obviously does not



compel him to know or investigate the employer's modes of business under the penalty, if he does not do so, of taking the risk of the employer's fault in furnishing him unsafe appliances.

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EMPLOYERS' LIABILITY—VICE PRINCIPALS—*Prevost v. Citizens' Ice and Refrigerating Co.*, 40 *Atlantic Reporter*, page 88.—Suit was brought in the court of common pleas of Philadelphia County, Pa., by John J. Prevost against the above-named company to recover damages for injuries received while in its employ. Judgment was rendered for him, and the defendant company appealed the case to the supreme court of the State, which rendered its decision May 2, 1898, and reversed the judgment of the lower court.

The opinion of the supreme court, delivered by Judge Mitchell, shows the facts in the case and the reasons for the decision, and reads as follows:

A vice principal for whose negligence an employer will be liable to other employees must be either—First, one in whom the employer has placed the entire charge of the business, or of a distinct branch of it, giving him not mere authority to superintend certain work or certain workmen but control of the business, and exercising no discretion or oversight of his own; or, secondly, one to whom he delegates a duty of his own which is a direct, personal, and absolute obligation, from which nothing but performance can relieve him.

In the present case the uniform testimony was that the fall of the pipes that injured the plaintiff was caused by the manner of removing the ice from them, and the judge submitted to the jury to find whether the manner was adopted by the workman who did it, on his own judgment, or whether he did it "by direction of some of the officers of the company higher in authority." The only person to whom the evidence pointed as having given the order was Flynn, and he does not come within either branch of the definition of a vice principal. The evidence is practically undisputed that the president of the company visited the factory several times a week and exercised a general supervision over its operation. Next to him in authority was Harper, the general manager, who hired the men, including plaintiff, and "had entire charge of the business, inside and out," as one of plaintiff's witnesses expressed it. Flynn was the chief engineer, and had general charge of the engine room and the freezing department, of which he was the foreman or boss. In that capacity he gave orders to the men in that department, and as the manager, Harper, testifies, had authority to engage men for short jobs in the manager's absence. This is the whole substance of the testimony, and it does not, in any view, amount to more than that Flynn was the foreman of that room or department. A foreman is ordinarily a fellow-workman. (*McGinley v. Levering*, 152 Pa. St., 366, 25 Atl., 824.)

So far we have considered only the plaintiff's evidence. If, however, we look at the defendant's, we find that Ballingall, the president, gave the order to Flynn not only to have the ice removed from the pipes, but to do it by shutting down the brine pumps, and letting the pipes become sufficiently warm to allow the ice to be removed easily. If Flynn disregarded this order, and directed it to be done in a different



way, the defendant would not be liable in any event. Where the employer himself assumes control and gives an express order, not only what to do, but how to do it, even a vice principal is bound to obey, and becomes, for the time being, a mere coemployee, whatever his general authority under other circumstances. And the employer is not bound to personally supervise the doing of the work. He is entitled to assume that his orders will be carried out. The evidence, therefore, whether we look at that on the part of the plaintiff or at the whole, fails to show anything that justifies the submission to the jury of the question whether Corner, the workman who caused the accident, was acting under the orders of the defendant company or any of its officers, and, as Corner himself was admittedly a coemployee, the verdict should have been directed for the defendant. Judgment reversed.

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EMPLOYERS' LIABILITY—VIOLATION OF RULES—*Card v. Wilkins et al.*, 39 *Atlantic Reporter*, page 676.—Action was brought in the supreme court of New Jersey by James Card against Alfred Wilkins and others to recover damages for personal injuries received while in the employ of the defendants. There was evidence to show that the plaintiff, a little over 12 years old, was employed in the defendants' shop in tending a machine containing two pairs of rollers armed with sharp teeth, into which it was his duty to feed twisted ropes of horse-hair; that the hair sometimes clogged the teeth and stopped the motion of the machine; that the plaintiff had been forbidden by the defendants' agent to touch the machine if it got clogged, or to attempt to remove the clogging hair until the machine was stopped; that upon the occasion of the accident he attempted to remove some hair, which threatened to clog the machine, without first stopping it, and his hand was drawn into the rollers and lacerated by its teeth. A verdict was rendered for the plaintiff, and on motion of the defendants the trial court allowed a rule to show cause why a new trial should not be ordered. After a hearing the court rendered its decision, February 21, 1898, making the rule absolute, setting aside the verdict, and ordering a new trial.

The opinion of the court was delivered by Chief Justice Magie, and the syllabus of the same, prepared by the court, reads as follows:

1. When an employer clearly and explicitly forbids his employee to do a certain act around or in connection with the machine on which the employee is working, and the employee, while violating such prohibition, and as a result of such violation, receives an injury, the employer is not liable therefor.

2. This rule applies as well to minor as to adult employees.



EMPLOYERS' LIABILITY — VOLUNTEERS — FELLOW - SERVANTS, ETC.—*Blackman v. Thomson-Houston Electric Co. of Augusta*, 29 *Southeastern Reporter*, page 120.—Action was brought in the city court of Richmond, Ga., by Thomas Blackman, against the above-named electric company to recover damages for injuries received by him while in its employ, and, as he alleged, in consequence of its negligence. The evidence showed that he was hurt by the falling of a scaffold upon him while he was attempting, with other employees, to move an iron wheel from a wagon into the power house of the company by means of a block and tackle attached to the scaffold; that the scaffold was built under the direction and supervision of the general foreman of the company; that the fall of the scaffold was the result of the pushing of the wheel, which was done under the orders of the foreman, and which was an improper thing to do in the absence of a support to the scaffold at one end, which was not braced; that Blackman was an engineer and had been employed to run the engine at the defendant's power house and to do other work required of him and whatever the foreman told him to do; that at the time of the moving of the wheel the foreman did not have help enough to move it and ordered the plaintiff to assist in said moving; and that the foreman had the right to direct the help at the power house, and to employ and discharge the hands, and had hired the plaintiff. On the trial of the case, at the conclusion of the evidence, the court granted a nonsuit, and the plaintiff excepted and carried the case on writ of error to the supreme court of the State, which rendered its decision July 27, 1897, and reversed the decision of the lower court.

The opinion of the supreme court was delivered by Judge Atkinson, and the syllabus of the same, which was prepared by the court, reads as follows:

1. One who is employed in the capacity of engineer for an incorporated manufacturing company, but who is likewise under a duty to obey generally the orders of a person who is placed in authority over him, and who has power temporarily to withdraw him from the performance of the special duty for which he was employed, and to assign him to the performance of other and inconsistent duties, not connected with or embraced within his special employment, is not a fellow-servant with such superior; and if, while engaged in the performance of such duties which had been so assigned to him by his superior, he be injured, he can not be regarded as a mere volunteer.

2. While the person occupying the inferior position is, in a broad and general sense, a coemployee, he is not a fellow-servant with the person in authority over him in the sense that he could not recover for injuries sustained by him in consequence of the negligence of such person.

3. If, in the prosecution of the business of the corporation, the agent having a general control of its working plant causes a scaffold to be constructed by other employees, under his direction, for the purpose of removing heavy machinery, and, after its completion, temporarily withdraws the engineer from the performance of the special duties for which



he was employed, and directs him to assist in the removal of such machinery, using for that purpose the scaffold so constructed, and because of some imperfection therein, resulting from a defect in the plan of its construction, such defect being unknown to the engineer, such scaffold falls, and in consequence injures the engineer, he is entitled to recover.

4. Where the person in authority, representing the master, undertakes to plan such a contrivance, and to superintend its construction by ordinary, unskilled laborers, such person thinks for the master, and the servant who uses it does not take the risk of defects of design, and the master will not be excused if, in consequence of such defects only, the servant is injured; but if the master deliver to such laborers material well suited to that purpose, leaving it to their discretion to devise the plan of so simple a contrivance as they proceed with the work, no recovery could be had by one who, as a fellow-servant with such laborers, subsequently undertook to use such contrivance, and because of defects therein was injured; and this is true whether the defect was of plan or construction. In either case the injury would be imputable to the negligence of the fellow-servant.

5. Under the principles above announced, the court erred in directing a nonsuit.

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SEAMEN—CRIMINAL JURISDICTION OF FOREIGN COURTS—RECOVERY OF WAGES—*Hindsgaul v. The Lyman D. Foster*, 85 *Federal Reporter*, page 987.—This suit was brought in the United States district court for the district of Washington, northern division, by one Nils E. Hindsgaul against the schooner *Lyman D. Foster* to recover wages, expenses, and damages for an assault alleged to have been committed upon him by the master. Said court rendered its decision March 5, 1898, and dismissed the suit.

The opinion was delivered by District Judge Hanford, and the following language, showing the facts, etc., in the case, was used therein:

The libelant was employed as first mate of the schooner *Lyman D. Foster*, for a voyage from Port Townsend to the port of Freemantle, West Australia, and return to a port of the United States on the Pacific coast, the voyage not to exceed 16 months, and was to receive wages at the rate of \$50 per month. Within a short time after sailing from Port Townsend there was trouble between him and the captain, in consequence of which the libelant was deposed, and the captain himself performed the duties of mate. After the schooner had entered the harbor of Freemantle, and when she was about to drop her anchor, the captain went forward to oversee the running out of the anchor chain, and, meeting the libelant near the windlass, ordered him to get out of the way, and immediately there was a fight between the two. Blows were struck by each. The captain was knocked down, and received considerable injury.

When the captain went ashore he reported the occurrence to the consular agent of the United States, who thereupon lodged a complaint with a local magistrate, charging the libelant with the commission of an assault upon the captain. The record of the proceedings in the case in the Australian court has not been produced, but from the testimony



I find that the libelant was taken before the court, and the witnesses to the occurrence on board the schooner in the harbor were summoned. One was sworn and gave testimony on the part of the prosecution. Three others, called at the instance of the libelant, were sworn and testified in his behalf. The magistrate or judge before whom the case was tried then refused to hear the testimony of other witnesses called at the instance of the libelant, for the reason that the three who did testify corroborated the testimony of the one witness for the prosecution as to the material points in the case; and, on the testimony taken, the court adjudged the libelant to be guilty as charged, and sentenced him to be punished by imprisonment for 12 weeks; and he was detained in prison under said sentence, having yet several weeks to serve, when the schooner was ready to leave the port. Before sailing from Freemantle, the captain gave to the United States consular agent a sum of money for the libelant, equal to the entire amount of his wages, at the rate agreed upon, for the time he was in the schooner, without making any deduction for the time he was off duty. The consular agent paid the costs and expenses of the criminal prosecution against the libelant, and gave him the balance. In this suit the libelant claims the balance of his wages for the entire voyage, and his expenses incurred at Freemantle and in returning to the United States, and also damages for assaults and abuse which he alleges were committed by the master.

Libelant's counsel has presented his case upon the theory that a court of a foreign country does not have jurisdiction to punish an American seaman for an offense against the laws of the United States, committed on board of an American vessel; and it is his contention that the imprisonment of the libelant at Freemantle was wrongful; that the captain violated his duty in sending the libelant ashore to be imprisoned in a foreign country, and that, having by his wrongful acts prevented the libelant from completing the voyage, he should be held estopped to dispute the right of the libelant to recover wages for the entire voyage, according to the terms of the contract; and that, having left libelant in a foreign port, the schooner is also liable for the amount of his expenses incurred while there and in returning.

I assent to the proposition that the courts of one country have no jurisdiction to punish a seaman for any offense committed at sea on board a merchant vessel under the flag of another country, nor to punish a seaman for an offense committed within its territorial jurisdiction, for an act made punishable as a crime by the laws of the country to which his ship belongs, unless such act is also a crime under the laws of the country where committed. But the jurisdiction of a court to punish infractions of the local law committed within its territorial jurisdiction may not be denied on the ground that the offender is an alien in the country, or that the act was committed on board of a foreign ship. The act of which the libelant was accused at Freemantle is *malum per se*, and, presumably, punishable as a crime in all civilized countries. The prosecution of the libelant was conducted according to forms of procedure designed to insure fairness and to promote justice, and he was convicted upon testimony of a witness against him, which was corroborated by witnesses called at his instance. Whether the judgment against him was just or unjust is a question which the courts of this country are not competent to decide, having no power to review the judgment of a court of competent jurisdiction of a foreign country. I hold that the detention of the libelant at Freemantle was not an unauthorized interference on the part of the local government, nor a wrong done to him at the instigation of the captain, but that he received Brit-



ish justice, at the hands of a British court, for a violation of British law committed within British territory. As a necessary consequence of his imprisonment, he was rendered incapable of fulfilling his contract and earning the wages which he is now suing to recover. By placing the amount of his wages for the time the libelant was in the schooner in the hands of the United States consular agent, for the libelant, the captain fully performed his duty toward the libelant as to payment of his wages. From that time the consular agent became responsible to the libelant for the money, and is liable if he misapplied any of it, but the schooner is free. Under the circumstances, there could be no formality observed in discharging the libelant from the service of the schooner—the actual condition of things effected an actual discharge; for the captain would not have been justified in detaining the schooner, on expense, in a foreign port, for several weeks, for the mere sake of receiving on board a subordinate officer detained in prison as punishment for an aggravated assault. He pursued the right course in going to sea when the schooner was ready to sail, and leaving all the money which the libelant could legally claim in the hands of an accredited representative of our Government.



# LAWS OF VARIOUS STATES RELATING TO LABOR ENACTED SINCE JANUARY 1, 1896.

[The Second Special Report of the Department contains all laws of the various States and Territories and of the United States relating to labor in force January 1, 1896. Later enactments are reproduced in successive issues of the Bulletin from time to time as published.]

## MARYLAND.

### ACTS OF 1898.

#### CHAPTER 34.—*Mine regulations and inspection.*

SECTION 1. Sections 196 to 209, inclusive, of article 1 of the Code of Public Local Laws of Maryland, entitled "Allegany County," subtitle "Mine inspector," and sections 150 to 164, inclusive, of article twelve of the Code of Public Local Laws of Maryland, entitled "Garrett County," subtitle "Manufactures and mines," are hereby repealed and reenacted with amendments, and certain new sections are hereby added to the said respective articles, to follow in the first-mentioned article, section 209, and to be designated as "sections 209A, 209B, 209C and 209D," and in the second herein-mentioned article, to follow section 164, and to be designated as "sections 164A, 164B and 164C," and to read as to the sections hereby repealed and reenacted, and also as to the said new sections as follows:

"196 of article 1 and 150 of article 12." That the governor shall, by and with the advice and consent of the Senate, appoint one mine inspector for the counties of Allegany and Garrett, who shall hold his office for two years from the date of his appointment.

"197 of article 1 and 151 of article 12." No person shall be eligible to the office of mine inspector until he shall have attained the age of 30 years and shall possess a competent and practical knowledge of the different systems of mining and working and properly ventilating coal mines in said counties, and the nature and constituent parts of various gases of mines, and of the various ways of expelling the same from said mines, and it shall be required that he has had five years' practical experience as a working miner in one or both counties combined next immediately preceding his appointment.

"198 of article 1 and 152 of article 12." That before entering upon and discharging any of the duties of his office, the mine inspector shall take an oath to faithfully discharge the duties hereinafter set forth, in an impartial manner, uninfluenced by the fear, favor, or influence of any person or corporation whatever.

"199 of article 1 and 153 of article 12." That it shall be the duty of said mine inspector to carefully and personally examine each mine that may be in operation in Allegany and Garrett counties at least once in every month, and oftener, if necessary, to see that every precaution is taken to insure safety to all workmen that may be engaged in said mines, and to see that the provisions of this act are strictly observed, and it shall further be the duty of said inspector, after being notified by the coroner or magistrate of either Allegany or Garrett counties, to attend at every inquest that may be held on the bodies of any person or persons that may lose their life or lives while engaged in work in or about any of the coal mines of said counties, and he shall examine closely into the cause by which such person or persons lost their life or lives, and if it shall be shown that said person or persons lost their life or lives by any willful violation of any of the provisions of this act by any owner or lessee or agent of said mines or any willful failure to comply with its provisions, the widow or lineal heirs of the person or persons whose life or lives shall be lost may institute a suit against said owner, lessee or operator of said mines, where or wherein the accident took place, and may recover such damages as the courts may determine for the loss they have sustained by the death of the person or persons whose life or lives have been lost while engaged at work in or about said mines.

"200 of article 1 and 154 of article 12." That the said mine inspector, while in office, shall not act as land agent or superintendent or manager of any mine, and shall in no manner whatever be under the employ of any mining companies or owners operating mines in said counties; and it shall be the duty of said mine inspector on or before the first day of January in every year to make a report to the governor



of his proceeding as such mine inspector and the condition of each and every mine in said counties, stating therein all accidents that may have happened in or about said mines, and set forth in said reports all such information that may be proper or beneficial, and also to make suggestions, as he may deem important, as to any further legislation on the subject of mining.

“201 of article 1 and 155 of article 12.” That the owner, lessee or agent of every coal mine that may now or hereafter be in operation in said counties of Allegany and Garrett, whether working by slope, shaft or drift, shall provide and establish within six months from the passage of this act for every such mine a proper system of pure-air ventilation by satisfactory and effective modes, either natural or artificial, and said ventilation shall be maintained thereafter as long as said mine is worked or operated, in every working place throughout the mine, and to expel from said mine the noxious gases or impure air, so that the mine, in all its working headings, rooms, crosscuts and working places, shall be in a healthful condition for the men working therein, and free from danger to their lives or health, by keeping therefrom such impure air or gases.

“202 of article 1 and 156 of article 12.” That the owner, lessee or agent of every mine in operation in the counties of Allegany and Garrett, shall furnish at their own expense, all props and all the requisite timber that may be necessary to be used in the working of said mines, and as the miners employed at work therein proceed with the working of their excavation; it shall be the duty of the owner, lessee or agent of said mines, to furnish a sufficient quantity of props and timber of suitable character at the place in the heading room, crosscut or other excavation in the mines where the miners are at work, and the owner, lessee or agent operating any such mines shall, at their own expense, properly timber any headings, rooms, pillars or other excavations not recently worked, and lay up roads by contract or otherwise to and in the same previous to the miners starting new or further work or excavations therein, and said owner, lessee or agent shall construct each heading hereafter driven in every mine of sufficient width and height, said height not to exceed the natural thickness of the vein, so as to admit of the passage of the drivers who may be engaged in driving cars along said headings.

“203 of article 1 and 157 of article 12.” That whenever any noxious gases or impure air is known to exist in any part of any mine being worked in either of said Allegany or Garrett counties by such owner, lessee or agent, and which is likely to endanger the health or lives of the miners employed therein it shall be the duty of the mine inspector, upon the same being known to him, to proceed at once to make a careful examination of the ventilating apparatus of the said mine, and if he shall find that the noxious gases or impure air existing in said mine resulted from the bad condition of the ventilating apparatus connected therewith, he shall immediately notify the owner, lessee or agent, to close said mine, or part of mine, or to expel from the same all such noxious gases or impure air therein, and to properly ventilate the same, and after such notification, if any owner, lessee or agent of such mine shall neglect for the space of ten days to close said mine or part of mine or to take proper steps to remove such gases or impure air from such mine, he shall be deemed guilty of a violation of the foregoing provisions of this section, and he shall be indictable and punishable for the same as for any other violation of this act, as hereinafter provided.

“204 of article 1 and 158 of article 12.” That the mine inspector shall also be an inspector of weights and measures at all mines now or hereafter opened in said Allegany or Garrett counties, and shall weigh several cars of coal mined therein once every month on the scales of the different mines in said counties, in order to test the accuracy of said scales, and to do any other act he may deem necessary to ascertain whether or not the miners are allowed the full weight of coal in the mining cars when placed upon the scales of the different mines, and it shall be the duty of every person acting as weighmaster for the owner, lessee or agent of any [of] said mines, before entering upon the performance of his duty as weighmaster, or before making any report as said weighmaster to said owner, lessee or agent, to make oath before some justice of the peace, in the county in which the opening or mouth of said mine is situated, that he will perform the duties of weighmaster, as prescribed by this act, at such mine, with honestly [honesty] and fidelity, and will keep a true and accurate account of all the coal so weighed by him, and will credit and allow the full weight of coal in each mining car to the party or parties who mined the same, at the rate of two thousand two hundred and forty pounds per ton and all fractions thereof to be counted in hundredweights (cwts.). But said oath of weighmaster shall be understood and construed as only requiring said weighmaster to allow and credit said fractions of tons in whole hundredweights (cwts.) in manner following, namely: Where the odd pounds in any mining car in excess of the whole hundredweight therein shall equal or exceed fifty-six pounds, the said weighmaster shall credit such miner with a whole hundredweight for such odd pounds, but where said odd pounds less than a whole hundredweight (cwt.) shall be less than fifty-six



pounds, then such weighmaster shall give such miner no credit whatever for such odd pounds, and said weighmaster shall deliver a copy under his hand and seal of said justice of said affidavit to the mine inspector and it shall be the duty of said weighmaster to perform the several acts and matters specified in said affidavit.

"205 of article 1 and 159 of article 12." That it shall be the duty of every person acting as weighmaster for the owners, lessee or agents of any of said mines, to keep in ink or indelible pencil a list or statement of the number of mining cars, and the weight of coal in each car mined each day, and the person mining the same, and place, and keep said list in some place at the weigh-house where said coal is weighed, where the miners interested therein may and can inspect it on and at all times throughout the same day on which the coal specified therein was mined, and each of said lists so placed there by said weighmaster shall be kept by him for reference and inspection by all persons interested therein for at least thirty days from the day on which the same is made out.

"206 of article 1 and 160 of article 12." That it shall be the duty of every person or body corporate, lessee, owner or agent operating a mine or mines in either of said counties of Allegany or Garrett, to provide correct and accurate scales, upon which all coal mined in said mine shall be weighed in the state in which it is mined before the same shall be taken from the mine cars, in which the miners have loaded the same, and it shall be the duty of every owner, lessee or agent of every mine to cause the average weight of all the cars used in any such mine to be plainly stamped in some conspicuous place on each of said cars.

"207 of article 1 and 161 of article 12." That at any time upon the request in writing to that effect of a majority of the miners then employed in any coal mine in said counties of Allegany and Garrett, to the agent, lessee, operator or owner of such mine, such owner, lessee, operator or agent of such coal mine shall permit said miners (but at their own expense) to provide and keep in the said weigh-house at said mine, at the scales kept thereat, for such length of time as such miners may require, a check weighmaster, who shall have the right at all times to be present when the coal mined at each mine is being weighed by the weighmaster of said mine, and to examine the scales thereof, and to take and keep a full statement of the weight of each mining carload of coal, as shown by the said scales when the coal is being weighed thereon, by said weighmaster, and upon the discovery by such check weighmaster of any willful violation of any of the provisions of this act by the weighmaster employed at such mine, it shall be the duty of such check weighmaster to immediately lay all such information before the State's attorney of the county in which such weigh-house is situated, or the mine inspector, for their action upon the same.

"208 of article 1 and 162 of article 12." That it shall be the duty of every agent, owner, lessee, operator, weighmaster, mining boss, overseer, roadsman, driver, miner or any other person working or engaged in any employment whatever, in or about the said mines in said Allegany and Garrett counties, or the tramroads or incline planes leading therefrom, to observe all practical care, caution and prudence in the work in which they may be engaged, so that all lives, health and safety of themselves and their colaborers, and the property of the owners in and about said mines, may be protected as far as practicable, consistent with the dangerous character of the work, from loss and injury, and it shall be the duty of all miners engaged in any of said mines to carefully prop and timber all rooms, headings and other excavations wherein they may be working, as close up to their work as may be reasonably practicable, so as to guard, as far as practicable, against all accidents from falls of roof, side or breast, coal or slate, earth or other surrounding matter, and any miner or other person employed or working in or about said mines who shall be guilty of any willful negligence in respect of any of the matters specified in this section whereby the lives, health or safety of any colaborers in and about any of said mines, or any of the property of the owners in or about said mines may be lost, destroyed or injured, or unnecessarily jeopardized, shall be liable to indictment, and upon conviction, to be fined as hereinafter provided; and whenever in any case it shall be brought to the notice of the mine inspector that any person is violating any of the provisions of this section, he shall at once order such person to take immediate steps to secure the safety of the person or property so jeopardized, and in case of the refusal of any person to comply with such order, it shall be the duty of said inspector to proceed at once to have such offender arrested and punished in accordance with the provision of this act.

"209 of article 1 and 163 of article 12." That the grand juries that may be hereafter summoned by the circuit courts for Allegany and Garrett counties are hereby authorized and empowered to summon said inspector before them, then at each term of court in said counties, and to examine into and take cognizance of the conduct of any mine inspector appointed under this act, and in case any grand jury of either Allegany or Garrett counties shall at any time recommend in their report that any mine inspector appointed under the provisions of this act should be removed from



his office for misbehavior therein, neglect of duty, incompetency, or inability through any cause to act, then, and in such case the clerk of the circuit court in which such report is filed shall forthwith transmit a copy of the same, certified under the seal of the court, to the governor of Maryland, who, upon receipt of the same, shall at once remove such mine inspector and proceed to appoint some other person to the office in his stead, to serve until the appointment of his successor as hereinbefore provided.

"209A of article 1 and 164 of article 12." That it shall be lawful, however, notwithstanding the provisions of this act, in relation to weighmaster and the weighing of coal, for any owner, lessee, individual or agent of any mine in said counties of Allegany and Garrett worked by shaft alone, to contract with the miners to mine coal therein or therefrom by measurement, and it shall also be lawful for any owner, lessee or agent of any mine in said counties, at or in which not more than ten miners are employed at any one time, to contract with the miner or miners employed therein, by the day, week or month, instead of by weight, and in all such cases when the compensation of the miners by their contract or agreement, fixed by the day, week or month, be ascertained by the cubic yard or other measurement, as hereinbefore provided; it shall not be obligatory upon such owner, lessee or agent of such mine to provide any weighmaster or weigh the coal mined in such shaft or mine, or taken therefrom, but the mine cars used in any such mine worked by shaft shall be measured by a sworn measurer, and said owner, lessee or agent shall cause the capacity of each of said mining cars to be plainly stamped or branded thereon; *Provided, however,* That apart from the exception contained in this section said owner, lessee or agent of any such mine specified in this section, operating the same, shall be held to all the requirements and be subject to all the liabilities and penalties which are provided herein in relation to the working and operation of all other coal mines covered by this act.

"209B of article 1 and 164A of article 12." That any owner, lessee [lessee], agent, operator, mining boss, roadsman, overseer, driver or miner or other person violating, neglecting or refusing to comply with any of the provisions of this act, or violating in any manner any of its provisions, shall be held and deemed guilty of a misdemeanor, and upon indictment therefor, and conviction thereof, shall be fined not less than fifty dollars nor more than five hundred dollars, in the discretion of the court, but nothing contained in this act shall be construed as depriving the courts of their jurisdiction to take cognizance of any offense specified in or covered by this act of which they would have had jurisdiction in the common law.

"209C of article 1 and 164B of article 12." That any mine inspector or weighmaster at any of said mines neglecting or refusing to comply with any of the requirements of this act, or violating or failing to perform in any way any of the duties of his office or position as herein prescribed, shall be held and deemed guilty of a misdemeanor, and upon indictment therefor and conviction thereof, shall be punished by a fine of not less than fifty dollars nor more than five hundred dollars, in the discretion of the court.

"209D of article 1 and 164C of article 12." Said mine inspector shall be paid an annual salary, at the rate of fifteen hundred dollars per year, payable quarterly, which said salary shall be paid out of the State's money by a warrant of the comptroller upon the State treasury for the same.

SEC. 2. This act shall take effect from the date of its passage.

Approved March 14, 1898.

#### CHAPTER 123.—*Labor laws—Baltimore, etc.*

SECTION 1. Article 4, entitled "City of Baltimore," of the Code of Public Local Laws of Maryland, and the several acts and parts of acts amendatory thereof, are hereby repealed, and the said article 4 is hereby reenacted, with amendments, under two subtitles to be known as "Charter" and "Miscellaneous Local Laws," so as to read as follows:

#### ARTICLE IV.

##### CITY OF BALTIMORE.

##### MISCELLANEOUS LOCAL LAWS.

Fire escapes on factories, etc.—Use of oil, etc., in factories prohibited.

SECTION 280. \* \* \* It shall not be lawful for any person, agent, owner or proprietor of any sweat shop or factory where four or more persons are employed, to use any coal oil, gasoline, or any other explosive or inflammable compound for the purpose of lighting or heating in any form; and any person, agent, owner or proprietor violating this provision shall be guilty of a misdemeanor, and on conviction



tion thereof, be fined by the court before which such conviction is had, for every violation, the sum of one hundred dollars and costs, and stand committed until such fine and costs be paid. The owner or owners of any such house or building used as a sweat shop or factory where four or more persons are employed as garment workers, on other than the first floor of such house or building, shall provide fire escapes for the same; and if any owner or owners of any house or building so used, fail to make or provide a fire escape, such owner or owners shall pay a fine of two hundred dollars, to be recovered as other fines in this State, or imprisonment in the city jail for sixty days, or both fine and imprisonment, in the discretion of the court.

Examination, licensing, etc., of steam engineers.

SEC. 426. The governor shall biennially appoint, in and for the city of Baltimore, two engineers who have had not less than ten years' practical experience in running steam engines, boilers and appliances pertaining to stationary or portable engines, and who have been residents of this State for not less than five years next preceding the date of their appointment, who shall constitute and be known as the "board of examining engineers." The parties so appointed, before entering on their duties, shall make oath before a justice of the peace that they will faithfully perform the duties of their office without fear, partiality or favor; and that they will not, during their term of office, accept any money, gift, gratuity or consideration from any person, and shall give bond to be approved by the comptroller of the State, in the sum of three thousand dollars each, for the faithful discharge of their duties; and before entering on said discharge of their said duties, the said inspectors shall provide themselves with an office in a proper location in the city of Baltimore, and shall give notice by publication for at least five days through the two daily papers having the largest circulation in said city, of the time and manner in which they will make the examinations hereinafter provided for.

SEC. 427. The said board shall have general supervision of all stationary engineers within the city of Baltimore; it shall be their duty to examine all engineers of the age of twenty-one years or upward, who shall apply to them for examination; and to give to all parties so examined a certificate of proficiency, if found proficient, and to refuse to give such certificate if not found proficient; and the parties so receiving such certificate shall pay to said board the sum of three dollars for each certificate so issued, and for all renewals of all grades the sum of one dollar and fifty cents; said certificates shall be of three grades; a certificate of the first grade will permit the holder thereof to take charge of any plant of machinery from one to five hundred horsepower, and the third grade to take charge of any plant of machinery from one to thirty horsepower; and the said certificate shall run for the term of one year, and shall be renewed annually, the term of beginning of said certificate to be from the date of the examination of the respective applicant; *Provided*, That no engineer having such certificate shall have charge of more than one plant of machinery at the same time unless said plant be of the same company and at one and the same place; and no substitute who has not been examined and received the certificate aforesaid shall be placed in charge of machinery by an engineer who has.

SEC. 428. All persons of twenty-one years of age or upward who, after the adoption of this article, shall desire to fill a position as a stationary engineer, must make application to the board of examining engineers for examination and certificate of proficiency, before he can pursue his avocation as such engineer; *Provided*, That any engineer employed as stationary engineer at the works of any steam railway, or any engineer employed as such with any stationary engine, who at the time of the adoption of this article shall have been employed at the same place for the term of six months or more, shall not be required to apply for such examination and certificate; but whenever such engineers shall remove from the place where so employed they shall be, and are hereby required to make application for examination and certificate to said board of examining engineers as hereinbefore provided; *And provided, further*, That the provisions of this section shall not apply to persons running engines and boilers in sparsely settled country places, where not more than twenty persons are engaged in work about such engines and boilers, nor to engineers running country saw and grist mills, thrashing machines and other machinery of a similar character, nor to marine engineers engaged in steamboats, ships and other vessels run by steam, nor to those engaged as locomotive engineers of any steam railway company. And in the event of any charge being made to said board, of any engineer who may hold a certificate from them, of being intoxicated, while in charge of an engine or boiler, or of the neglect of duty on the part of such engineer or engineers, it shall be the duty of said board to immediately hear such charge, and if sustained, annul such certificate. The certificate granted to the respective applicants must be framed and kept in a conspicuous place at such place as such persons may be respectively at work. Any person violating the provisions of this subdivision of this article shall be deemed guilty of a misdemeanor, and, upon trial and conviction before a justice of



the peace, shall be fined not less than twenty-five dollars nor more than fifty dollars, one-half of which shall be paid the informer and the balance to the State.

SEC. 429. Said board of examining engineers shall meet at their office in the city of Baltimore for the purpose of examining applicants at least once in every week, and at a specified hour and day, and shall sit until all applicants shall be examined, and in the event of inability to examine all the applicants on the regular day of meeting, they shall continue their sessions for each successive day until the same shall be completed. They shall visit and inspect the running and management of all steam plants wherein the engineers are required to be examined as hereinbefore provided, not less than once every six months, and in the event of their finding on such examination that the engineer or engineers in charge of such plant or machinery are not running and managing the same with proper skill and care, they shall report the same to the State board of boiler inspectors for their action; and said board of examining engineers are hereby invested with power and authority to enter all such premises and make the examination herein provided for; and any owner of any such premises who shall refuse to allow them to enter and make such examination shall be deemed guilty of a misdemeanor and be punishable, upon trial and conviction, as provided in the preceding section.

SEC. 430. The said board of examining engineers shall receive an annual salary of fifteen hundred dollars each, and shall have power to employ a clerk or secretary at a salary not exceeding the sum of one thousand dollars per annum, and such expense shall be allowed said board as shall be incurred in traveling expense, office rent, stationery and printing, and for which they shall produce to the comptroller of the State treasury proper vouchers; *Provided, however,* That no appropriation shall be made and no moneys paid by the State treasurer to said board for or on account of said salaries and expenses, but that the same shall be paid to them by and from the fees received for the examination and certificates hereinbefore provided for; *And provided, further,* That the said board shall keep a strict account of all fees received for such purposes, and quarterly, under oath or affirmation, return said statement to the comptroller of the State treasury; and whenever the amount is in excess of the salaries and expenses hereinbefore provided for they shall forward such excess to said comptroller, and they shall keep a certificate book with the certificates therein duly numbered and of which to each certificate there is a corresponding stub to be filled in to correspond in all respects to the certificate issued, and subject to the inspection of the comptroller, when he may deem the same necessary.

#### Seats for female employees.

SEC. 505. It shall be the duty of all employers of females in any mercantile or manufacturing business or occupation in the city of Baltimore to provide and maintain suitable seats for the use of such female employees, and to permit the use of such seats by such employees to such an extent as may be reasonable for the preservation of their health.

SEC. 506. Any violation of the preceding section by any employer shall be deemed a misdemeanor, and shall be punishable by a fine of one hundred and fifty dollars, to be collected as other fines are collected.

#### Tenement and lodging houses.

SEC. 507. The mayor and city council of Baltimore are authorized and directed to enact ordinances regulating the construction, care, use and management of tenement houses, lodging houses and cellars in the city of Baltimore, for the better protection of the lives and health of the inmates dwelling therein.

SEC. 508. A tenement house shall be taken to mean and include every house, building or portion thereof which is rented, leased, let or hired out to be occupied, or is occupied, as the house or residence of more than three families living independently of another, and doing their own cooking upon the premises, or by more than two families upon a floor so living or cooking, but having a common right in the halls, stairways, yards, water-closets or privies, or some of them; a lodging house shall be taken to mean and include any house or building, or portion thereof, in which persons are harbored or received, or lodged for hire for a single night, or for less than a week at one time, or any part of which is let for any person to sleep in for any time less than a week; a cellar shall be taken to mean and include every basement or lower story of any building or house of which one-half or more of the height from the floor to the ceiling is below the level of the street adjoining.

#### Examination, licensing, etc., of plumbers.

SEC. 509. It shall not be lawful for any person, firm or corporation engaged in the plumbing business in the city of Baltimore to employ as workmen in said business



any persons, except those qualified to work at the plumbing business, as provided in section 511 of this article; and no person shall be qualified to work at the plumbing business unless he has made application to and received from the State board of commissioners of practical plumbing the certificate of competence provided for in section 511 of this article, and is otherwise qualified, as required by this subdivision of this article. Any person or firm engaged in the plumbing business in the city of Baltimore, and the superintendent, manager, agent or other officer of any corporation, engaged in the plumbing business in the city of Baltimore, who shall employ any person to work at the plumbing business not qualified as required by this subdivision of this article shall be guilty of a misdemeanor, and upon conviction thereof shall be fined not less than ten dollars nor more than fifty dollars for every day or part of every day that such employer shall employ such workman.

SEC. 510. If any person shall work at the plumbing business in the city of Baltimore without being qualified as required by this subdivision of this article he shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined not less than five dollars nor more than fifty for every day or part of every day that such workman shall work at the plumbing business.

SEC. 511. The governor shall appoint biennially five persons, who shall constitute a board of commissioners, which shall be known and designated as "The State board of commissioners of practical plumbing," and who shall be selected as follows: Three persons who are practical and skilled plumbers from the city of Baltimore, the commissioner of health of Baltimore city, and a member of the State board of health, from the State at large, whose duty it shall be to faithfully and impartially execute, or cause to be executed, all the provisions and requirements of this and the two preceding sections, upon application and in such manner and at such place as they may determine; *Provided*, Said place of examination shall be within the limits of the city of Baltimore, they shall examine each and every person who shall desire to work at the plumbing business, touching his competency and qualifications; and upon being satisfied that the person so examined is competent and qualified to work at said business, they, or any three of them, shall grant such person a certificate of competency, and register him in their books as a practical plumber, which shall operate as full authority to him to conduct and engage in the said business of plumbing.

SEC. 512. The said board of commissioners shall demand and receive from each applicant for a certificate of competency whom they examine and pass the sum of three dollars at the time of the issuance of said certificate, and the sum of one dollar for the renewal thereof each and every year thereafter, on or before the first day of May.

SEC. 513. The money received under the provisions of the foregoing section shall be used and applied by said commissioners to defray their expenses, and all surplus over and above their necessary expenses shall be returned to the state treasurer for the use of the State.

SEC. 514. Said commissioners shall hold their several offices for the period of two years, commencing from the first day of May in the year eighteen hundred and eighty-six, and thereafter until their successors have been appointed and qualified; each commissioner, within thirty days after notification of his appointment, shall take and subscribe an oath or affirmation before the clerk of the superior court of Baltimore city, to impartially and faithfully discharge his duties as said commissioner; every person appointed commissioner, who shall refuse or neglect to take the oath or affirmation provided for in this section, within the period named, shall be deemed to have refused said office, and the governor shall immediately appoint some person qualified as provided in section 511 of this article, to fill the vacancy thus created; each of said commissioners shall receive the sum of five dollars for every day that he shall be present at a meeting of said board, for the transaction of business; *Provided, however*, That in each year he shall not receive compensation for more than thirty dollars [days?]; *And provided, also*, That said compensation shall be paid out of the fees or other sums received by said board.

SEC. 515. The said board of commissioners are empowered to make such rules and regulations from time to time as in their judgment they may deem necessary and requisite; and they shall make a report of the condition of the board to the governor biennially, on or before the first day of February, with a full statement of their receipts and expenditures.

#### Hours of labor—Employees of the city.

SEC. 516. No mechanic or laborer employed by the mayor and city council of Baltimore, or by any officer, agent or contractor under it, shall be required to work more than nine hours per day as a day's labor; *Provided, however*, That this section shall not apply to mechanics and laborers whose hours of labor are already fixed at less than nine hours per day; *And provided, further*, That the provisions of this sub-



division of this article shall not apply to the employees of the fire department, Bay View asylum or the Baltimore city jail. Any such officer, agent or contractor who shall require any mechanic or laborer to work more than nine hours per day, contrary to the provisions of this section, shall be fined not less than ten dollars nor more than fifty dollars for each offense; one-half of such fine to go to the informer; said fines to be collected as other fines are collected by law.

#### Hours of labor—Street-railway employees.

SEC. 793. No street railway company incorporated under the laws of this State, and no officer, agent or servant of such corporation, and no person or firm owning or operating any line or lines of street railways within the limits of this State, and no agent or servant of such firm or person shall require, permit or suffer its, his or their conductors or drivers, or any of them, or any employees in its, his or their service, or under his, its or their control, to work more than twelve hours during each or any day of twenty-four hours, and shall make no contract or agreement with such employees, or any of them, providing that they or he shall work for more than twelve hours during each or any day of twenty-four hours.

SEC. 794. Any corporation which shall in any manner violate any of the provisions of the preceding section shall be deemed to have misused or abused its corporate powers and franchises, and the attorney-general of the State, upon the application in writing, made by any citizen of this State, accompanied by sufficient proof of such violation, shall forthwith, without further authorization, institute proceedings for the forfeiture of the charter of such corporation, by petition in the name of the State, in the manner provided by the laws of this State for the enforcement of the forfeiture of the charter of any corporation which has abused or misused its corporate powers or franchises.

SEC. 795. If any corporation, or any officer, agent or servant of such corporation, or any person or any firm managing or conducting any street railway in this State, or any agent or servant of such person or firm, shall do any act in violation of the provisions of section 793, it, he, or they shall be deemed to have been guilty of a misdemeanor, and shall, on conviction thereof in a court of competent jurisdiction, be fined one hundred dollars for each offense so committed, together with the costs of such prosecution.

#### Employment of females as waiters in places of public amusement.

SEC. 900. It shall not be lawful for any proprietor, lessee or manager of any theater, museum or other place of amusement, to employ women or girls as waiters, or to permit them to act in such theater or place of amusement, or among the audience or frequenters of such theater or place of amusement as waiters, or for the purpose or under the pretense of selling, serving, receiving orders or pay for spirituous or malt liquors, wines, lager beer, or any other refreshments or merchandise.

SEC. 901. Any person violating the provisions of the preceding section shall be deemed guilty of a misdemeanor, and on conviction thereof in the criminal court of Baltimore, shall be sentenced to pay a fine of not less than one hundred nor more than one thousand dollars, or to imprisonment in jail not less than one month nor more than six months, or to both fine and imprisonment, at the discretion of the court, and to forfeiture of license, one-half the fine to be paid to the informer and the other half to the State.

Approved March 24, 1898.

#### CHAPTER 273.—*Manual training and industrial schools.*

WHEREAS, the establishment of well-conducted and liberally-supported schools, or departments, in one of the large graded schools or high schools in each county of the State, for the development and training of the manual ability of pupils, must tend to supply a growing want in each county of the State; and

WHEREAS, it is especially the duty of the State to afford the best educational facilities to its youth in those technical studies which are directly associated with the material prosperity of its people; and

WHEREAS, it is for the best interests of this State that the colored population of each county shall have an opportunity for the establishment of separate industrial schools; therefore,

SECTION 1. *Be it enacted by the General Assembly of Maryland,* That it shall be the duty of the board of county school commissioners, when a suitable building, or room or rooms connected with one of the large graded schools or high schools, shall be provided by the county, or money sufficient for the erection of such building, or room or rooms, to accept the same (if, in the judgment of the board, there is any necessity therefor), and thereafter to provide for the maintenance of a manual training school, or manual training department, for said county, and the salaries of teachers and



manual training instructors, out of the general school fund and the State aid hereinafter provided.

SEC. 2. *And be it enacted*, That whenever a manual training school, or manual training department, is opened in any county, the president and secretary of the board of county school commissioners of said county shall report to the secretary of the State board of education, and the State board of education shall, without delay, proceed to appoint the principal of the State normal school, or one of the teachers in said school, well qualified for such service, to visit the school and give a certificate of approval of its condition and the plan upon which it is conducted; and thereafter the president and secretary of the board of county school commissioners shall report to the comptroller the condition of the school, the number of instructors, and the number of pupils enrolled, on or before the twentieth day of January in each year.

SEC. 3. *And be it enacted*, That the comptroller of the treasury, after receiving the certificate of approval concerning the county manual training school, or manual training department, according to the provisions of the second section of this act, is hereby authorized and directed to issue his warrant upon the treasurer of the State for the sum of fifteen hundred dollars, payable to the order of the treasurer of the board of county school commissioners of the county filing the certificate of approval aforesaid, out of any moneys in the State treasury not otherwise appropriated, on the first day of October in each year, for the support of said manual training school, or manual training department.

SEC. 4. *And be it enacted*, That the county manual training school, or the manual training department and the school to which it is attached, shall be under the management and control of the board of county school commissioners.

SEC. 5. *And be it enacted*, That it shall be the duty of the board of county school commissioners of each county in this State, whenever a suitable building, or room or rooms connected with one of the colored schools of said county, shall be provided by the county to accept the same, if in the judgment of the said board there is any necessity therefor, and thereafter to provide for the maintenance of such member [number] of separate colored industrial schools as in their judgment may be needed, and the salaries of such teachers as may be required for that purpose shall be paid out of the general fund and the State aid hereinafter provided.

SEC. 6. *And be it enacted*, That whenever any such separate colored industrial school or schools are opened in any county, the president and secretary of the board of county school commissioners of said county shall report the fact to the secretary of the State board of education, and the State board of education shall without delay proceed to appoint a proper person well qualified for such service, to visit the said school or schools and give a certificate of approval of its condition and the plan upon which it is conducted, and thereafter the president and secretary of the said board shall report to the comptroller of this State the condition of said school or schools, the number of instructors and the number of pupils enrolled during the school year last ended, on or before the 20th day of August in each year.

SEC. 7. *And be it enacted*, That the comptroller of the treasury upon receiving the certificate of approval concerning the county colored industrial school or schools, as aforesaid, according to the provisions of the sixth section of this act, is hereby authorized and directed to issue his warrant upon the treasurer of the State for the sum of fifteen hundred dollars, payable to the order [of the] treasurer of the board of county school commissioners of the county, upon the filing of the certificates of approval aforesaid, out of any moneys in the State treasury not otherwise appropriated, on the first day of October in each year, for the support of said colored industrial school or schools, and thereafter the said industrial school or schools shall be under the management and control of the said board of county school commissioners.

SEC. 8. *And be it enacted*, That no entire appropriation for the benefit of any manual training school, provided for under this act, shall be paid as authorized after the first annual appropriation, unless said school shall have had an average daily attendance of thirty scholars for the preceding year; and in case said attendance shall fall short of said number, then there shall only be paid toward the maintenance of said school at the rate of fifty (\$50.00) dollars for each scholar of its daily average annual attendance, to be determined by the report hereinbefore required to be made to the comptroller.

SEC. 9. *And be it enacted*, That no appropriation for the benefit of the colored industrial schools of any county, provided for under this act, shall be paid after the first annual appropriation, unless the average daily attendance at such school or schools shall have been, for the preceding year, at least thirty scholars; and in case said attendance shall fall short of said number, then there shall be paid to the treasurer of the county school commissioners maintaining said school or schools, only at the rate of fifty (\$50.00) dollars a scholar, for the daily average annual attendance at the same, to be determined by the report hereinbefore required to be made to the comptroller.

Approved April 7, 1898.



CHAPTER 457.—*Earnings of married women.*

SECTION 1. Article XLV of the Code of Public General Laws, title "Husband and wife," is hereby repealed and reenacted with amendments, so as to read as follows:

1. \* \* \* All the property which she [a married woman] may acquire or receive after her marriage, \* \* \* by her own skill, labor or personal exertions, \* \* \* shall be protected from the debts of the husband, and not in anyway be liable for the payment thereof; \* \* \*

SEC. 2. This act shall take effect on and after the first day of January, 1899.

Approved April 9, 1898.

CHAPTER 458.—*Hours of labor—Employees of city.*

SECTION 1. The act of 1892, chapter 286, entitled "An act to add a new section to article 4 of the Code of Public Local Laws, title 'City of Baltimore,' subtitle 'Mayor and city council of Baltimore,' and to come in after section 31, and to be called section 31A, relating to the hours of labor of mechanics and laborers upon city work," is hereby repealed and reenacted to read as follows:

31A. No mechanic or laborer employed by the mayor and city council of Baltimore, or by any officer, agent, contractor or subcontractor under them, shall be required to work more than eight hours per day as a day's labor; *Provided, further,* That this section shall not apply to the employees of the fire department, Bay View asylum or the Baltimore city jail. Any such officer, agent, contractor or subcontractor who shall require any mechanic or laborer to work more than eight hours per day, contrary to the provisions of this section, shall be fined not less than ten dollars nor more than fifty dollars for each and every offense, one-half of such fine to go to the informer; said fines to be collected as other fines are collected by law.

SEC. 2. This act shall take effect on the first day of May, 1898.

Approved April 9, 1898.

CHAPTER 474.—*Policemen not to be employed on mechanical work or labor.*

SECTION 1. An additional section, to be known as 759B, [shall] be added to article 4 of the Public Local Laws, title "City of Baltimore," subtitle "Police," to read as follows:

759B. No member of the police force provided for by this article and subtitle shall be by the said board of police commissioners employed or be permitted to be employed, to do or perform for the said board, or the mayor and city council of Baltimore, any mechanical work or labor other than the work or labor required of the members of said police force by the provisions of this article and subtitle relating to police duties. The purpose and object of this section is to prevent patrolmen and other members of said police force from being taken from the performance of police duty, as prescribed by this article and subtitle, and made to perform the work and labor of carpenters, bricklayers and similar mechanical work and labor.

SEC. 2. This act shall take effect from the date of its passage.

Approved April 9, 1898.

CHAPTER 491.—*Examination, licensing, etc., of horseshoers.*

SECTION 1. It shall be unlawful for any person to practice horseshoeing in the city of Baltimore or in the twelfth district of Baltimore County, unless such person has obtained a certificate and has been duly registered as hereinafter provided.

SEC. 2. A "board of examiners for horseshoers" is hereby created, which shall consist of five member [members], one of whom shall be doing business as veterinarian only, two master horseshoers and two journeymen horseshoers, all doing business in Baltimore City, whose duty it shall be to carry out the purposes and enforce the provisions of this act. The members of said board shall be appointed by the governor, and the term for which they shall hold office shall be four years, except that the members of said board to be first appointed under this act shall be designated by the governor to serve one for two years, two for three years, and two for four years, and unless removed by the governor, until their successors are duly appointed. Any vacancy in said board, for any cause, shall be filled by the governor.

SEC. 3. Said board shall meet in the month of May next after the passage of this act, and organize by the election of a president and secretary, and thereafter shall hold regular meetings in the months of May and November in every year, and such special meetings for the examination of persons desiring to practice horseshoeing as occasion may require; they shall pass such by-laws and prescribe such rules and regulations as may be necessary to carry into effect the provisions of this act; and said board shall, at its first meet, prescribe and clearly define the qualifications and



tests necessary to obtain a certificate as master or journeyman horseshoer. Printed copies of such requirements shall be furnished to all persons desiring to pass an examination for said certificate, and any person who shall on examination be found by a majority of said board to possess the said requirements so prescribed, shall be granted a certificate to that effect on the payment to said board of a fee of two dollars; and all proceedings of said board shall be open to public inspection.

SEC. 4. Any person who has practiced as a master or journeyman horseshoer in the city of Baltimore or the twelfth district of Baltimore County, for three years prior to the passage of this act, who will file an affidavit to that effect with said board, shall be entitled to a certificate without an examination, on the payment of a fee of twenty-five cents to said board; or anyone who has a certificate from any duly constituted examining board of the State of Maryland, or of any other State, that he is a competent master or journeyman horseshoer, on filing and registering said certificate or a copy thereof with said board, shall be entitled to a certificate from said board without examination, on payment of a fee of two dollars; but, after the passage of this act, no person who has not served an apprenticeship at horseshoeing for a period of three years shall be entitled to an examination for said certificate.

SEC. 5. All certificates issued by said board shall be signed by its officers and bear its seal; and the secretary of said board shall keep a book, in which all certificates so issued and the names of the persons to whom the same shall have been issued shall be duly registered, and a transcript from said book of registration, certified by the secretary, with the seal of the board, shall be evidence in any court in the State, and said secretary shall furnish to anyone a copy of his certificate on payment of the sum of one dollar.

SEC. 6. Any person who shall violate any of the provisions of this act shall be guilty of a misdemeanor, and upon the conviction thereof in any court having criminal jurisdiction, shall be fined not more than twenty-five dollars or be confined in the Baltimore city jail or Baltimore county jail, not more than one month, in the discretion of the court. All fines received under this act shall be paid into the common school fund of the city of Baltimore, or of Baltimore County, if the offense shall have been committed in said county. The provisions of this act shall not interfere with the right of the owners of horses to have them shod at their own shops.

SEC. 7. This act shall take effect from the date of its passage.

Approved April 9, 1898.

CHAPTER 493.—*Truck system—Railroad and mining corporations prohibited from selling goods, etc., to employees—Allegany County.*

SECTION 1. It shall not be lawful for any railroad or mining corporation, doing business in Allegany County, nor for the president, vice president, manager, superintendent, any director or other officer of such corporation, to own or have any interest in any general store or merchandise business in Allegany County, in which goods, wares and merchandise are sold, nor to conduct or carry on any such business, or have any interest in the profits of the same in Allegany County, nor to sell or barter any goods, wares or merchandise in such county.

SEC. 2. It shall not be lawful for the clerk of the circuit court for Allegany County to issue a trader's license to any corporation or person or persons to sell goods, wares and merchandise, unless he shall first administer to the party applying therefor an oath that no railroad or mining company, or president, manager, superintendent, or any director, or other officer of such corporation, has any interest directly or indirectly in such store or business, or the profits thereof, purposed to be carried on under said license.

SEC. 3. Any store or business conducted in Allegany County by railroad or mining corporation, or private individuals engaged in railroading or mining, in which goods, wares or merchandise are sold to the employees of the owners of such store or business in part payment of their wages as such employees, shall be subject to a suit at law for damages by the employees purchasing such goods, and be liable to the said employees in a sum of money equal to the amount paid for such goods, wares or merchandise bought by such employees.

SEC. 4. Any such mining corporation who, through its stockholders, officers, by any rule or regulation of its business, shall make any contract with the keepers or owners of any other store whereby the employees of such corporation shall be obliged to trade with such keeper or owner, shall be guilty of a misdemeanor and upon conviction shall be subject to damages payable to said employee to the extent of the amount of goods purchased from such store; proof of such a contract between the mining corporation and the storekeeper shall be prima facie evidence of the fact that such store is under control of such mining corporation and in violation of the provisions of this act.

SEC. 5. Any corporation or person who shall violate any of the provisions of this law, which is hereby declared to be a law to prevent employers from controlling



the trade of their employees, or coercing and directing them to any certain store, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be fined not less than fifty dollars nor more than five hundred dollars, and the license of such corporation, person or persons, shall be suppressed.

SEC. 6. This act shall take effect on the first day of January, 1899.

Approved April 14, 1898.

CHAPTER 505.—*Protection of wages of employees of stevedores—Stevedores' licenses.*

SECTION 1. A section [shall] be added to the Public Local Laws of Maryland, volume 1, article 4, title "City of Baltimore," subtitle "Licenses," to provide for licenses for stevedores, said section to be known as 668A, and to read as follows:

668A. Before any person or body corporate shall transact the business of a master stevedore in the city of Baltimore, he or it shall first obtain from the clerk of the court of common pleas in said city a State's license, authorizing him or it to carry on said business in the said city, for which said license he or it shall pay the sum of twenty-five dollars, and in addition to this, he or it shall file with said clerk a bond to the State of Maryland in the sum of one thousand dollars, which said bond shall be furnished by some security or bonding company of the city of Baltimore, to be approved by said clerks for the faithful performance of said business of a stevedore, and for the payment of all wages due by him or it, to any one employed by him or it in the work of unloading vessels in the city of Baltimore, and any stevedore who shall violate this section by failure to file such bond, or to obtain the license as aforesaid, though continuing to transact the business of a stevedore, shall be deemed guilty of a misdemeanor, and shall, on conviction thereof in the criminal court of Baltimore City, be fined the sum of one hundred dollars, or be imprisoned in the city jail for the term [of] not exceeding six months, or both, in the discretion of the court.

Approved April 9, 1898.

MISSISSIPPI.

ACTS OF 1898.

CHAPTER 65.—*Employer's liability for death of an employee, etc.*

SECTION 1. The act of the legislature of said State [Mississippi], approved March 23, 1896, being entitled "An act to amend section 663 of the Annotated Code of 1892, as to actions causing death, and exempting damages, recovered for personal injuries, [shall] be amended so as to read as follows:

CHAPTER 86. An act to amend section 663 of the Annotated Code of 1892, as to actions for causing death, and exempting damages, recovered for personal injuries.

SECTION 1. Section 663 of the Annotated Code of 1892 [shall] be so amended as to read as follows: Whenever the death of any person shall be caused by any real, wrongful or negligent act, or omission, or by such unsafe machinery, way or appliances, as would, if death had not ensued, have entitled the party injured or damaged thereby to maintain an action and recover damages in respect thereof, and such deceased person shall have left a widow or children, or both, or husband, or father, or mother or sister, or brother, the person or corporation, or both, that would have been liable if death had not ensued, and the representative of such person shall be liable for damages, notwithstanding the death, and the fact that death is instantaneous, shall, in no case, affect the right of recovery. The action for such damages may be brought in the name of the widow for the death of the husband, or by the husband for the death of the wife, or by a parent for the death of a child, or in the name of a child for the death of a parent, or by a brother for the death of a sister, or by a sister for the death of a brother, or by a sister for the death of a sister, or a brother for the death of a brother, or all parties interested may join in the suit, and there shall be but one suit for the same death, which suit shall inure for the benefit of all parties concerned, but the determination of such suit shall not bar another action unless it be decided on its merits. In such action the party or parties suing shall recover such damages as the jury may, taking into consideration all damages of every kind to the decedent and all damages of every kind to any and all parties interested in the suit. Executors or administrators shall not sue for damages for injury causing death except as below provided; but every such action shall be commenced within one year after the death of such deceased person.

SEC. 2. This act shall apply to all personal injuries of servants or employees received in the service or business of the master or employer, where such injuries result in death.



SEC. 3. Damages recovered under the provisions of this act shall not be subject to the payment of the debts or liabilities of the deceased, and such damages shall be distributed as follows: Damages for the injury and death of a married man shall be equally distributed to his wife and children, and if he has no children all shall go to his wife; damages for the injury and death of a married woman shall be equally distributed to the husband and children, and if she has no children all shall go to the husband; if the deceased has no husband nor wife, the damages shall be distributed equally to the children; if the deceased has no husband, nor wife, nor children, the damages shall be distributed equally to the father, mother, brothers and sisters, or to such of them as the deceased may have living at his or her death. If the deceased have neither husband, or wife, or children, or father, or mother, or sister, or brother, then the damages shall go to the legal representatives, subject to debts and general distribution, and the executor may sue for and recover such damages on the same terms as are prescribed for recovery by the next of kin in section 1, of this act, and the fact that deceased was instantly killed shall not affect the right of the legal representative to recover.

SEC. 4. All suits pending in any court at the time of the approval of this act and which were also pending at the time said chapter went into effect, shall not be affected by any of its provisions; but all such suits shall be conducted and concluded under the laws in force prior to the time of the approval of said act, on March 23, 1896.

Approved January 27, 1898.

CHAPTER 66.—*Employer's liability for injuries to employees.*

SECTION 1. The act of the legislature of said State [Mississippi], approved March 11, 1896, being entitled "An act to amend section 3559 of the Annotated Code of 1892, with reference to the liability of corporations to their employees," [shall] be amended so as to read as follows:

CHAPTER 87. An act to amend section 3559 of the Annotated Code of 1892, with reference to the liability of corporations to their employees.

SECTION 1. Section 3559 of the Annotated Code of 1892 [shall] be amended so that the same shall read as follows, to wit: Every employee of any corporation shall have the same rights and remedies for an injury suffered by him from the act or omission of the corporation or its employees, as are allowed by other persons not employees where the injury results from the negligence of a superior agent or officer, or of a person having the right to control or direct the services of the party injured; and also when the injury results from the negligence of a fellow-servant engaged in another department of labor from that of the party injured, or of a fellow-servant on another train of cars, or one engaged about a different piece of work. Knowledge by an employee injured of the defective or unsafe character or condition of any machinery, ways or appliances, or of the improper loading of cars, shall not be defense to an action for injury caused thereby, except as to conductors or engineers in charge of dangerous or unsafe cars or engines voluntarily operated by them. When death ensues from an injury to an employee an action may be brought in the name of the widow of such employee for the death of the husband, or by the husband for the death of his wife, or by the parent for the death of a child, or in the name of the child for the death of an only parent, for such damages as may be suffered by them respectively by reason of such death, the damages to be for the use of such widow, husband or child, except that in case the widow should have children the damages shall be distributed as personal property of the husband. The legal or personal representative of the person injured shall have the same rights and remedies as are allowed by law to such representatives of other persons. In every such action the jury may give such damages as shall be fair and just with reference to the injury resulting from such death to the persons suing. Any contract or agreement, expressed or implied, made by an employee to waive the benefit of this section shall be null and void; and this section shall not deprive an employee of a corporation or his legal personal representative of any right or remedy that he now has by law.

SEC. 2. All suits pending in any court at the time of the approval of this act, and which were also pending at the time said chapter went into effect, shall not be affected by any of its provisions; but all such suits shall be conducted and concluded under the laws in force prior to the time of the approval of said act, on March 11, 1896.

Approved January 31, 1898.



CHAPTER 70.—*Intimidation of employees, etc.*

SECTION 1. Any person or persons who shall, by placards, or other writing, or verbally, attempt by threats, direct or implied, of injury to the person or property of another, to intimidate such other person into an abandonment or change of home or employment, shall, upon conviction, be fined not exceeding \$500.00, or imprisoned in the county jail not exceeding six months, or in the penitentiary not exceeding five years, as the court, in its discretion, may determine.

SEC. 2. This act shall take effect and be in force from and after its passage.

Approved February 11, 1898.

CHAPTER 71.—*Payment of wages due at death of employee.*

SECTION 1. When any employee shall die leaving wages due him to an amount not exceeding two hundred dollars, it shall be lawful for the employer after sixty days to pay said wages to the wife of said deceased employee, if he leave a wife surviving him; and if he shall leave no wife surviving him, then to his children, if adults; and if he shall leave no children and no wife surviving him, then to his father; and if he shall leave no wife, or children or father surviving him, then to his mother; and if he shall leave no wife, or children, or father or mother surviving him, then to his brothers and sisters, if adults; and if such employee shall have left no wife, or children, nor brothers nor sisters, nor father nor mother surviving him, or if any of his children surviving him shall be minors, or if any of his brothers or sisters surviving him entitled to inherit shall be minors, then it shall be lawful for said employer to pay said wages to the chancery clerk of the county in which said employee resided at the time of his death, or of the county where he died.

SEC. 2. Where such wages are paid to the chancery clerk as provided in the first section of this act, it shall be the duty of the chancery clerk to pay that portion of the wages of such employee which may belong to the adult children or brothers and sisters of such deceased employee and to report to the next term of the chancery court who are the minor brothers or sisters or children of said employee and how much is coming to each one of the heirs of said employee, and thereupon the chancery court shall enter an order upon the probate minutes of the court directing the payment by the chancery clerk of the shares of such minor children or brothers and sisters of such deceased employee. In any case where the employer shall pay such wages to the chancery clerk, he shall be discharged from all further liability.

SEC. 3. The clerk and the sureties on his official bond shall be liable for the faithful performance of the duties imposed upon him by this act, and for faithfully accounting for any and all sums of money as shall be paid to him under this act, and shall receive commissions now allowed by law to administrators and executors for collecting and distributing moneys belonging to the estate of a decedent.

SEC. 4. This act shall take effect and be in force from and after its passage.

Approved February 8, 1898.

## VIRGINIA.

## • ACTS OF 1897-98.

CHAPTER 33.—*Trade-marks of trade unions, etc.*

SECTION 1. Whenever any person, or any association or union of workingmen has heretofore adopted or used, or shall hereafter adopt or use, any label, trade-mark, term, design, device, or form of advertisement, for the purpose of designating, making known, or distinguishing any goods, wares, merchandise, or other product of labor, as having been made, manufactured, produced, prepared, packed, or put on sale by such person or association or union of workingmen, or by a member or members of such association or union, and has filed and recorded the same as hereinafter provided, it shall be unlawful to counterfeit or imitate such label, trade-mark, term, design, device, or form of advertisement, or to use, sell, offer for sale, or in any way utter or circulate any counterfeit or imitation of any such label, trade-mark, term, design, device, or form of advertisement.

SEC. 2. Whoever counterfeits or imitates any such label, trade-mark, term, design, device, or form of advertisement, or knowingly and with intent to deceive sells, offers for sale, or in any way utters or circulates any counterfeit or imitation of any such label, trade-mark, term, design, device, or form of advertisement, or knowingly and with intent to deceive, keeps or has in his possession, with intent that the same shall be sold or disposed of, any goods, wares, merchandise, or other product of labor to which, or on which, any such counterfeit or imitation is printed, painted, stamped, or impressed, or knowingly and with intent to deceive, knowingly sells or disposes of any goods, wares, merchandise, or other product of labor contained in



any box, case, can, or package, to which, or on which, any such counterfeit or imitation is attached, affixed, printed, painted, stamped, or impressed, or knowingly and with intent to deceive, keeps or has in his possession with intent that the same shall be sold or disposed of, any goods, wares, merchandise, or other product of labor in any box, case, can, or package to which, or on which, any such counterfeit or imitation is attached, affixed, printed, painted, stamped, or impressed, shall be punished by a fine of not more than one hundred dollars, or by imprisonment for not more than three months.

SEC. 3. Every such person, association, or union that has heretofore adopted or used, or shall hereafter adopt or use a label, trade-mark, term, design, device, or form of advertisement as provided in section one of this act, may file the same for record in the office of the secretary of the Commonwealth by leaving two copies, counterparts, or facsimiles thereof, with said secretary, and by filing therewith a sworn application, specifying the name or names of the person, association, or union on whose behalf such label, trade-mark, term, design, device, or form of advertisement shall be filed; the class of merchandise and a description of the goods to which it has been, or is intended to be appropriated, stating that the party so filing, or on whose behalf such label, trade-mark, term, design, device, or form of advertisement shall be filed, has a right to use the same; that no other person, firm, association, union, or corporation has the right to such use, either in the identical form or in any such near resemblance thereto as may be calculated to deceive, and that the facsimile or counterparts filed therewith are true and correct. There shall be paid for such filing and recording to the Commonwealth a tax of two dollars and fifty cents. Said secretary shall deliver to such person, association, or union so filing, or causing to be filed any such label, trade-mark, term, design, device, or form of advertisement, so many duly attested certificates of the recording of the same as such person, association, or union may apply for, for each of which certificates said secretary shall receive a fee of one dollar. Any such certificate of record shall in all suits and prosecutions under this act be sufficient proof of the adoption of such label, trade-mark, term, design, device, or form of advertisement. Said secretary of the Commonwealth shall not record for any person, union, or association any label, trade-mark, term, design, device, or form of advertisement that would probably be mistaken for any label, trade-mark, term, design, device, or form of advertisement theretofore filed by or on behalf of any other person, union, or association.

SEC. 4. Any person who shall for himself, or on behalf of any other person, association, or union, procure the filing of any label, trade-mark, term, design, or form of advertisement in the office of the secretary of the Commonwealth, under the provisions of this act, by making any false or fraudulent representations or declaration, verbally, or in writing, or by any fraudulent means, shall be liable to pay any damages, sustained in consequence of any such filing, to be recovered by or on behalf of the party injured thereby, in any court having jurisdiction, and shall be punished by a fine not exceeding one hundred dollars, or by imprisonment not exceeding three months.

SEC. 5. Every such person, association, or union adopting or using a label, trade-mark, term, design, device, or form of advertisement as aforesaid, may proceed by suit to enjoin the manufacture, use, display, or sale of any counterfeits or imitations thereof, and all courts of competent jurisdiction shall grant injunctions to restrain such manufacture, use, display, or sale as may be by the said court deemed just and reasonable, and shall require the defendants to pay to such person, association, or union, all profits derived from such wrongful manufacture, use, display, or sale; and such court shall also order that any such counterfeits, or imitations in the possession, or under the control of any defendant in such cause be delivered to an officer of the court, or to the complainant to be destroyed.

SEC. 6. Every person who shall use or display the genuine label, trade-mark, term, design, device, or form of advertisement, of any such person, association, or union in any manner, not being authorized so to do by such person, union, or association, shall be deemed guilty of a misdemeanor, and shall be punished by imprisonment for not more than three months, or by a fine of not more than one hundred dollars. In all cases where such association, or union, is not incorporated, suits under this act may be commenced and prosecuted by an officer or member of such association or union, on behalf of, and for the use of such association or union.

SEC. 7. Any person or persons who shall in any way use the name or seal of any such person, association, or union, or officer thereof, in and about the sale of goods or otherwise, not being authorized to so use the same, shall be guilty of a misdemeanor, and shall be punishable by imprisonment for not more than three months, or by a fine of not more than one hundred dollars.

SEC. 8. This act shall take effect and be in force from and after its passage.

Approved January 3, 1898.



CHAPTER 53.—*Seats for female employees.*

SECTION 1. All persons who employ females in stores, shops, offices, or manufactories as clerks, operatives, or helpers in any business, trade, or occupation carried on or operated by them in the State of Virginia, shall be required to procure and provide proper and suitable seats for all such females, and shall permit the use of such seats, rests or stools, as may be necessary, and shall not make any rules, regulations or orders preventing the use of such stools or seats when any such female employees are not actively employed in their work in such business or employment.

SEC. 2. If any employer of female help in the State of Virginia shall neglect or refuse to provide seats, as provided in this act, or shall make any rules, orders, or regulations in his shop, store, or other place of business, requiring females to remain standing when not necessarily employed in service or labor therein, he shall be deemed guilty of a misdemeanor, and upon conviction thereof in any court of competent jurisdiction shall be liable to a fine therefor in a sum not to exceed twenty-five dollars with costs, in the discretion of the court.

SEC. 3. This act shall be in force from its passage.

Approved January 12, 1898.

CHAPTER 181.—*Protection of street-railway employees—Inclosed platforms.*

SECTION 1. All city and street passenger railway companies are hereby required to use vestibule fronts on all cars run, manipulated or transported by them on their lines during the months of December, January, February and March of each year; *Provided*, That said companies shall not be required to close the sides of said vestibules, and any street railway company refusing or failing to comply with said requirement shall be subject to a fine of not less than ten dollars nor more than one hundred dollars for each offense; *Provided*, That the provisions of this act shall not apply to the street railway lines of the city of Petersburg.

Approved February 1, 1898.

CHAPTER 314.—*Garnishment of the wages of public employees.*

SECTION 1. All officers, clerks and employees who hold their office by virtue of city, town or county authority, whether by election or appointment, and who receive compensation for their services from the moneys of such city, town or county shall, for the purpose of garnishment, be deemed to be, and are, employees of such city, town or county.

SEC. 2. This act shall be in force from its passage.

Approved February 12, 1898.

CHAPTER 410.—*Garnishment of the wages of public employees.*

SECTION 1. The wages and salaries of all officials, clerks and employees of any city, town or county shall be subject to garnishment or execution upon any judgment rendered against them; *Provided*, Said officials, clerks, and employees are not exempt from garnishment or levy under chapter one hundred and seventy-eight of the Code of Virginia.

SEC. 2. This act shall be in force from its passage.

Approved February 19, 1898.

CHAPTER 474.—*Protection of railroad employees—Injuring signals, etc.*

SECTION 1. If any person maliciously injure, destroy, or remove any switch-lamp, flag, or other signal used by any railroad whereby the life of any traveler, employee, or other person is or may be put in peril, he shall be punished by confinement in the penitentiary not less than two nor more than ten years; and in the event of the death of any traveler, employee, or other person resulting from such malicious injuring, destroying or removing, the person so offending shall be deemed guilty of murder, the degree to be determined by the jury. If such act be done unlawfully, but not maliciously, the offender shall, in the discretion of the jury, be confined in the penitentiary not less than one nor more than five years, or be confined in jail not exceeding twelve months and fined not exceeding five hundred dollars. And in the event of the death of any traveler, employee, or other person, resulting from each unlawful injuring, destroying, or removing, the person so offending shall be deemed guilty of murder or of manslaughter as the jury may determine.

SEC. 2. This act shall be in force from its passage.

Approved February 24, 1898.



CHAPTER 628.—*Assignment, etc., of claims to avoid effect of exemption laws as regards wages, unlawful.*

SECTION 1. Chapter two hundred and eighty-six of the acts of assembly of eighteen hundred and ninety-five and ninety-six, entitled an act for the protection of laboring men who are householders against being deprived of the exemption to which they are entitled under section three thousand six hundred and fifty-two of the Code of Virginia, approved February eleventh, eighteen hundred and ninety-six, [shall] be amended and reenacted so as to read as follows:

§ 1. It shall be unlawful for any person to institute, or permit to be instituted, proceedings in his own name, or in the name of any other person, or to assign or transfer, either for or without value, any claim for debt or liability of any kind, held by him against a resident of this State who is a laboring man and a householder, for the purpose of having payment of the same, or any part thereof, enforced out of the wages exempted by section three thousand six hundred and fifty-two of the Code of Virginia, by proceedings in attachment or garnishment, in courts or before justices of the peace in any other State than in the State of Virginia, or to send out of this State by assignment, transfer, or in any other manner whatsoever, either for or without value, any claim or debt against any resident thereof for the purpose or with the intent of depriving such person of the right to have his wages exempt from distress, levy, or garnishment according to the provisions of section three thousand six hundred and fifty-two of the Code of Virginia. And the person instituting such suit, or permitting such suit to be instituted, or sending, assigning, or transferring any such claim or debt for the purpose or with the intent aforesaid, shall, upon conviction thereof, be fined not less than ten dollars nor more than one hundred dollars, and shall in addition thereto, be liable in an action of debt to the person from whom payment of the same, or any part thereof, shall have been enforced by attachment or garnishment, or otherwise, elsewhere than in the State of Virginia, for the full amount, payment whereof shall have been so enforced together with interest thereon, and the costs of the attachment or garnishee proceedings, as well as the costs of said action.

SEC. 2. The amount recovered in such action shall stand on the same footing with the wages of the plaintiff under section three thousand six hundred and fifty-two of the Code, and shall also be exempt and free from any and all liability of the plaintiff to the defendant in the way of set-off or otherwise.

SEC. 3. The fact that the payment of a claim or debt against any person entitled to the exemption provided for in section three thousand six hundred and fifty-two of the Code has been enforced by legal proceedings in some State other than the State of Virginia, in such manner as to deprive such person to any extent of the benefit of such exemption, shall be prima facie evidence that any resident of this State, who may at any time have been owner or holder of said claim, or debt, has violated this law.

SEC. 4. This act shall be in force from the date of its passage.

Approved March 1, 1898.

CHAPTER 863.—*Bureau of labor and industrial statistics.*

SECTION 1. A bureau of labor and industrial statistics of the State of Virginia is hereby established.

SEC. 2. It shall be the duty of said bureau to collect, assort, systematize, and present in annual reports to the governor, to be by him biennially transmitted to the legislature, statistical details relating to all departments of labor, penal institutions, and industrial pursuits in the State, especially in their relation to the commercial, industrial, social, educational and sanitary condition of the laboring classes, and to the permanent prosperity of the productive industries of the State.

SEC. 3 (as amended by chap. 1007, acts of 1897-98). The governor shall appoint, by and with the consent of the senate, some suitable person who is identified with the labor interests of the State, who shall be designated commissioner of labor statistics, and who shall, upon the request of the governor, furnish such information as he may require. The term of office for said commissioner shall be two years from date of his appointment, with power of removal by the governor for cause.

SEC. 4 (as amended by chap. 1007, acts of 1897-98). The commissioner shall have power to take and preserve testimony, examine witnesses under oath and administer the same and in the discharge of his duties may, under proper restrictions, enter any public institution of the State, and any factory, workshop or mine. The commissioner may also furnish and deliver a written or printed list of interrogations to any person, company, or the proper officer of any corporation, and require full and complete answers to be made thereto and returned under oath within thirty days of receipt of said list of questions; and if any person who may be sworn to give testimony shall willfully fail or refuse to answer any legal and proper question pro-



pounded to him concerning the subject of such examination, as indicated in the second section of this act, or if any person to whom a written or printed list of such interrogations has been furnished by said commissioner shall neglect or refuse to fully answer and return the same under oath, such person shall be deemed guilty of a misdemeanor, and upon conviction thereof before a court of competent jurisdiction, shall be fined in a sum not exceeding one hundred dollars nor less than twenty-five dollars, or by imprisonment in the county jail not exceeding ninety days, or by both fine and imprisonment; *Provided, however,* That nothing in this act shall be construed as permitting the commissioner or any employee of this bureau to make use of any information or statistics gathered from any person, company or corporation for any other than the purposes of this act.

SEC. 5. All State, county, township and city officers are hereby directed to furnish said commissioner, upon his request, all statistical information in reference to labor which shall be in their possession as such officers.

SEC. 6. The sum of two thousand dollars per annum is hereby appropriated out of any funds in the State treasury not otherwise appropriated, eight hundred dollars of which is to be used as salary of the said commissioner, and the balance to be used to meet contingent expenses, and so forth.

SEC. 7. This act shall be in force from its passage.

Approved March 3, 1898.

## IOWA.

### ACTS OF 1898.

#### CHAPTER 49.—*Liability of employer for injuries of employees.*

SECTION 1. Section number two thousand and seventy-one (2071) of the Code [shall] be amended by adding at the end thereof the following:

"Nor shall any contract of insurance, relief, benefit, or indemnity in case of injury or death, entered into prior to the injury, between the person so injured and such corporation, or any other person or association acting for such corporation, nor shall the acceptance of any such insurance, relief, benefit, or indemnity by the person injured, his widow, heirs, or legal representatives after the injury, from such corporation, person, or association, constitute any bar or defense to any cause of action brought under the provisions of this section, but nothing contained herein shall be construed to prevent or invalidate any settlement for damages between the parties subsequent to injuries received."

Approved March 8, 1898.

#### CHAPTER 59.—*Ventilation of coal mines.*

SECTION 1.—Section 2488 of the Code \* \* \* is hereby amended by inserting in line seven after the words "working parts of the same" the following: "But in no case shall the air current be a greater distance than sixty feet from the working face, except when making cross cuts in entries for an air-course; then in that case the distance shall not be greater than seventy feet: *Provided, however,* That the district mine inspector may in writing grant permission to go beyond the limit herein mentioned when the conditions are such in a special case as to require it." When the air current is carried to the working face of the rooms, in double-room mining, such air current shall be treated as that contemplated in this act.

Approved March 28, 1898.

#### CHAPTER 60.—*Oil to be used in coal mines.*

SECTION 1. Section twenty-four hundred and ninety-four (2494) of the Code [shall] be amended by adding after the words "adulterated oils" in the eleventh line, the words "Oil that has not been inspected and approved by an inspector."

SEC. 2. Section twenty-four hundred and ninety-five (2495) [of the Code shall] be stricken out and the following substituted therefor:

"It shall be the duty of an inspector of petroleum products to inspect and test all



oil offered for sale, sold, or used for illuminating purposes in coal mines in this State, and for such purpose he may enter upon the premises of any person. If upon test and examination the oil shall meet the requirements made and provided by the State board of health, he shall brand, over his own official signature and date, the barrel or vessel holding the same with the words 'Approved for illuminating coal mines.' Should it fail to meet such requirements, he shall brand it over his official signature and date, 'Rejected for illuminating coal mines.' All inspection shall be made within this State, and paid for by the person for whom the inspection is made at the rate of ten cents per barrel or vessel, which charge shall be a lien on the oil inspected, and be collected by the inspector. Each inspector shall be governed in all things respecting his record, compensation, expenses, and returns to the treasurer of state and secretary of state as provided in sections twenty-five hundred and six and twenty-five hundred and seven of the Code. It shall be the duty of the inspector whenever he has good reason to believe that oil is being sold or used in violation of the provisions of this chapter to make complaint to the county attorney of the county in which the offense was committed, who shall forthwith commence proceedings against the offender, in any court of competent jurisdiction. All reasonable expenses for analyzing suspected oil shall be paid by the owner of the oil whenever it is found that he is selling or offering to sell impure oil in violation of the provisions of this chapter. Such expenses may be recovered in a civil action, and in criminal proceedings such expenses shall be taxed as part of the costs."

SEC. 3. This act, being deemed of immediate importance, shall take effect and be in force from and after its publication in the Iowa State Register and Des Moines Leader, newspapers published at Des Moines, Iowa.

Approved March 25, 1898.

I hereby certify that the foregoing act was published in the Iowa State Register and Des Moines Leader, April 7, 1898.

G. L. DOBSON,  
*Secretary of State.*

## KENTUCKY.

### ACTS OF 1898.

#### CHAPTER 4.--*Convict labor.*

SECTION 1. A board of commissioners is hereby created to govern the penitentiaries of this Commonwealth. \* \* \*

SEC. 3. \* \* \* If, at any time, the labor of the convicts confined in the penitentiaries is not hired out to a contractor or contractors, as hereinafter provided, the warden shall employ said convicts, such as are not sentenced to solitary confinement, in useful labor, as far as practicable, such as may be profitably conducted within the prison walls; \* \* \*

SEC. 13. It shall be the duty of the commissioners to hire out to a contractor or contractors all the convicts able to perform manual labor, to be worked within the walls of the penitentiaries. Such hiring shall be to the highest and best bidder, after due advertising, and the labor in both penitentiaries may be hired to one person, or the labor in whole or in part in each penitentiary may be hired to different contractors. The commissioners shall make it a condition precedent to the consummation of the contract, that the number of the convicts so hired may vary, and such variation in number shall in no wise affect the contract or impair its obligation. Each bid shall specify the price proposed to be paid for the labor per head, and shall be accompanied by a bond with sureties, who shall be worth in the aggregate double the amount that may be due the State at any time under the stipulations of the proposed contract, to the satisfaction of the commissioners that the bidder will comply with the terms thereof. The bid shall be opened by the commissioners on the last day named in the advertisement for receiving the same, and be awarded to the highest and best bidder, the commissioners having the right to reject all bids. The price agreed to be paid shall be paid in monthly or quarterly installments by the contractor as the commissioners may determine, and it is hereby made a condition precedent to the contract that on failure of lessee or lessees to pay any installment within one month after same is due, the commissioners may elect to declare the lease forfeited for nonpayment of rent, giving the lessees thirty days' notice in writing declaring a



forfeiture thereof, and the commissioners may take possession without further notice. The term for which said convicts may be hired shall not be more than four years with the privilege of renewal, and the contractor shall obligate himself to faithfully conform to all the rules and regulations that may be established by the commissioners touching all sanitary and police matters, and for the government of the prison. Upon the execution of the bond as above required, and the acceptance of the bid, the contractor shall be entitled to the labor of said convicts, the various shops and power therein belonging to the State. But [if] after due advertisement as above set forth, the commissioners [shall] fail to secure such a bid as is acceptable to them, then they may hire the convicts to a contractor or contractors, by private contract, and such contract, when made, shall be consummated in all respects, and shall contain the same stipulations and provisions, as is required in this section for a contractor who hires said convicts by public bid. \* \* \*

Vetoed by the governor on the first day of March, 1898.

Passed through the senate on the fifth day of March, 1898, the objections of the governor to the contrary notwithstanding.

Passed through the house of representatives on the fifth day of March, 1898, the objections of the governor to the contrary notwithstanding.

#### CHAPTER 15.—*Payment of wages to mine employees and coercion of same to buy at company stores.*

SECTION 1. All persons, associations, companies and corporations employing the service of ten or more persons in any mining work or mining industry in this Commonwealth, shall on or before the sixteenth day of each month pay for the month previous such servant or employees on his or their order in lawful money of the United States the full amount of wages due such servant or employees rendering such services. But if such person, corporation or company, after using due diligence, is unable to make said payment as above required he or it shall within fifteen days thereafter make out a pay roll and statement of amount due each employee and also a due bill for said sum bearing interest from said sixteenth day of the month, and deliver same to each of said employees.

SEC. 2. It shall be unlawful for any person or persons, association company, or corporation employing others, as described in section one, either directly or indirectly, to coerce or require any such servant or employee to deal with or purchase any article of food, clothing or merchandise of any kind whatever, from any person, association, corporation or company, or at any place or store whatever. And it shall be unlawful for any of such employers as described in the first section to exclude from work, or to punish or black list any of said employees for failure to deal with any other or to purchase any article of food, clothing or merchandise whatever from any other or at any place or store whatever.

SEC. 3. Any person or persons, company or corporation described in the first section that shall violate any of the provisions of this act shall be guilty of a misdemeanor and on conviction shall be fined not less than fifty dollars nor more than one hundred dollars for each offense, and the doing or failure to do any act or thing required by this act shall constitute a separate offense.

Received by the governor March 2, 1898.

Became a law at the expiration of ten days without the governor's approval.

### NEW YORK.

#### ACTS OF 1898.

#### CHAPTER 133.—*Convict labor.*

SECTION 1. The superintendent of State prisons is hereby authorized to employ not to exceed two hundred convicts confined in Clinton prison in the improvement of the highways between said Clinton prison and the village of Saranac, in the town of Saranac, in the county of Clinton. \* \* \*

SEC. 2. This act shall take effect immediately.

Became a law March 28, 1898, with the approval of the governor. Passed, three-fifths being present.



CHAPTER 645.—*Convict labor—Limitation of printing, etc., to be done in penal institutions.*

SECTION 1. No printing or photo-engraving shall be done in any State prison, penitentiary, or reformatory for the State or any political division thereof, or for any public institution owned or managed and controlled by the State or any such political division except such printing as may be required for or used in the penal and State charitable institutions, and the reports of the State commission of prisons and the superintendent of prisons, and all printing required in their offices.

SEC. 2. This act shall take effect immediately.

Became a law April 29, 1898, with the approval of the governor. Passed, three-fifths being present.

CHAPTER 671.—*Prevention of fraudulent representation in labor organizations.*

SECTION 1. Any person who represents himself or herself to be a member of or who claims to represent a labor organization which does not exist within the State at the time of such representation, or who has in his or her possession a credential, certificate, or letter of introduction bearing a fraudulent seal, or bearing the seal of a labor organization which has ceased to exist, and does not exist at the time of such representation, and attempts to gain admission by the use of said credential, certificate, or letter of introduction as a member of any convention or meeting of representatives of labor organizations of the State, shall be guilty of a misdemeanor and upon conviction thereof shall be punishable by a fine of not less than twenty dollars nor more than fifty dollars, and imprisonment for not less than ten days nor more than thirty days in the jail of the county wherein such conviction is had, or by both such fine and imprisonment.

SEC. 2. This act shall take effect immediately.

Became a law April 30, 1898, with the approval of the governor. Passed, a majority being present.

## DISTRICT OF COLUMBIA.

## ACTS OF 1897-98.

CHAPTER 467.—*Examination, licensing, etc., of plumbers and gas fitters.*

SECTION 1. The Commissioners of the District of Columbia are hereby authorized to appoint a plumbing board to be composed of two master plumbers, one journeyman plumber competent to be licensed as master plumber, and two employees of the District of Columbia having a knowledge of plumbing and gas fitting and sanitary work, whose compensation shall be three hundred dollars per annum each, payable monthly. A majority of the board shall be deemed competent for action.

SEC. 2. In addition to such advisory duties as said Commissioners shall assign them, it shall be the duty of said plumbing board to examine all applicants for license as master plumbers or gas fitters, and to report to said Commissioners, who, if satisfied from such report that the applicant is a fit person to engage in the business of plumbing or gas fitting, shall issue a license to such person to engage in such business.

SEC. 3. Applicants for licenses as master plumbers or gas fitters must be twenty-one years of age, must make application in their own handwriting, and must accompany such application with a certificate as to good character, signed by at least three reputable citizens of the District of Columbia.

SEC. 4. The fee for a license as master plumber or gas fitter shall be three dollars.

SEC. 5. It shall be unlawful for any person to engage in the work of plumbing or gas fitting in the District of Columbia unless he is licensed as provided in this act, or is an employee of a licensed master plumber.

SEC. 6. It shall be unlawful for the owner or lessee of any building in the District of Columbia, or the agent or representative of such owner or lessee, to knowingly employ an unlicensed person to do plumbing or gas fitting in or about such building.

SEC. 8. Any person violating any of the provisions of this act shall, on conviction thereof in the police court, be punished by a fine of not less than five dollars nor



more than one hundred dollars; and in default of payment of such fine such person shall be confined in the workhouse of the District of Columbia for a period not exceeding six months; and all prosecutions under this act shall be in the police court of said District, in the name of the District of Columbia.

SEC. 9. This act shall go into effect thirty days from and after its approval, and all acts inconsistent herewith are hereby repealed.

Approved, June 18, 1898.

## UNITED STATES.

### ACTS OF 1897-98.

CHAPTER 370.—*Arbitration of labor disputes between common carriers engaged in interstate commerce and their employees—Forfeiture of membership in national trade unions for violence, intimidation, etc.—Right of employees of railroads in hands of Federal receivers to be heard in court on questions affecting terms of their employment, etc.—Protection of employes of interstate railroads as members of labor unions, etc.*

SECTION 1. The provisions of this act shall apply to any common carrier or carriers and their officers, agents, and employees, except masters of vessels and seamen, as defined in section forty-six hundred and twelve, Revised Statutes of the United States, engaged in the transportation of passengers or property wholly by railroad, or partly by railroad and partly by water, for a continuous carriage or shipment, from one State or Territory of the United States, or the District of Columbia, to any other State or Territory of the United States, or the District of Columbia, or from any place in the United States to an adjacent foreign country, or from any place in the United States through a foreign country to any other place in the United States. The term "railroad" as used in this act shall include all bridges and ferries used or operated in connection with any railroad, and also all the road in use by any corporation operating a railroad, whether owned or operated under a contract, agreement, or lease; and the term "transportation" shall include all instrumentalities of shipment or carriage. The term "employees" as used in this act shall include all persons actually engaged in any capacity in train operation or train service of any description, and notwithstanding that the cars upon or in which they are employed may be held and operated by the carrier under lease or other contract: *Provided, however,* That this act shall not be held to apply to employees of street railroads and shall apply only to employees engaged in railroad train service. In every such case the carrier shall be responsible for the acts and defaults of such employees in the same manner and to the same extent as if said cars were owned by it and said employees directly employed by it, and any provisions to the contrary of any such lease or other contract shall be binding only as between the parties thereto and shall not affect the obligations of said carrier either to the public or to the private parties concerned.

SEC. 2. Whenever a controversy concerning wages, hours of labor, or conditions of employment shall arise between a carrier subject to this act and the employees of such carrier, seriously interrupting or threatening to interrupt the business of said carrier, the chairman of the Interstate Commerce Commission and the Commissioner of Labor shall, upon the request of either party to the controversy, with all practicable expedition, put themselves in communication with the parties to such controversy, and shall use their best efforts, by mediation and conciliation, to amicably settle the same; and if such efforts shall be unsuccessful, shall at once endeavor to bring about an arbitration of said controversy in accordance with the provisions of this act.

SEC. 3. Whenever a controversy shall arise between a carrier subject to this act and the employees of such carrier which can not be settled by mediation and conciliation in the manner provided in the preceding section, said controversy may be submitted to the arbitration of a board of three persons, who shall be chosen in the manner following: One shall be named by the carrier or employer directly interested; the other shall be named by the labor organization to which the employees directly interested belong, or, if they belong to more than one, by that one of them which specially represents employees of the same grade and class and engaged in services of the same nature as said employees so directly interested: *Provided, however,* That when a controversy involves and affects the interests of two or more classes and grades of employees belonging to different labor organizations, such



arbitrator shall be agreed upon and designated by the concurrent action of all such labor organizations; and in cases where the majority of such employees are not members of any labor organization, said employees may by a majority vote select a committee of their own number, which committee shall have the right to select the arbitrator on behalf of said employees. The two thus chosen shall select the third commissioner of arbitration; but, in the event of their failure to name such arbitrator within five days after their first meeting, the third arbitrator shall be named by the commissioners named in the preceding section. A majority of said arbitrators shall be competent to make a valid and binding award under the provisions hereof. The submission shall be in writing, shall be signed by the employer and by the labor organization representing the employees, shall specify the time and place of meeting of said board of arbitration, shall state the questions to be decided, and shall contain appropriate provisions by which the respective parties shall stipulate, as follows:

First. That the board of arbitration shall commence their hearings within ten days from the date of the appointment of the third arbitrator, and shall find and file their award, as provided in this section, within thirty days from the date of the appointment of the third arbitrator; and that pending the arbitration the status existing immediately prior to the dispute shall not be changed: *Provided*, That no employee shall be compelled to render personal service without his consent.

Second. That the award and the papers and proceedings, including the testimony relating thereto certified under the hands of the arbitrators and which shall have the force and effect of a bill of exceptions, shall be filed in the clerk's office of the circuit court of the United States for the district wherein the controversy arises or the arbitration is entered into, and shall be final and conclusive upon both parties, unless set aside for error of law apparent on the record.

Third. That the respective parties to the award will each faithfully execute the same, and that the same may be specifically enforced in equity so far as the powers of a court of equity permit: *Provided*, That no injunction or other legal process shall be issued which shall compel the performance by any laborer against his will of a contract for personal labor or service.

Fourth. That employees dissatisfied with the award shall not by reason of such dissatisfaction quit the service of the employer before the expiration of three months from and after the making of such award without giving thirty days' notice in writing of their intention so to quit. Nor shall the employer dissatisfied with such award dismiss any employee or employees on account of such dissatisfaction before the expiration of three months from and after the making of such award without giving thirty days' notice in writing of his intention so to discharge.

Fifth. That said award shall continue in force as between the parties thereto for the period of one year after the same shall go into practical operation, and no new arbitration upon the same subject between the same employer and the same class of employees shall be had until the expiration of said one year if the award is not set aside as provided in section four. That as to individual employees not belonging to the labor organization or organizations which shall enter into the arbitration, the said arbitration and the award made therein shall not be binding, unless the said individual employees shall give assent in writing to become parties to said arbitration.

SEC. 4. The award being filed in the clerk's office of a circuit court of the United States, as hereinbefore provided, shall go into practical operation, and judgment shall be entered thereon accordingly at the expiration of ten days from such filing, unless within such ten days either party shall file exceptions thereto for matter of law apparent upon the record, in which case said award shall go into practical operation and judgment be entered accordingly when such exceptions shall have been finally disposed of either by said circuit court or on appeal therefrom.

At the expiration of ten days from the decision of the circuit court upon exceptions taken to said award, as aforesaid, judgment shall be entered in accordance with said decision unless during said ten days either party shall appeal therefrom to the circuit court of appeals. In such case only such portion of the record shall be transmitted to the appellate court as is necessary to the proper understanding and consideration of the questions of law presented by said exceptions and to be decided.

The determination of said circuit court of appeals upon said questions shall be final, and being certified by the clerk thereof to said circuit court, judgment pursuant thereto shall thereupon be entered by said circuit court.

If exceptions to an award are finally sustained, judgment shall be entered setting aside the award. But in such case the parties may agree upon a judgment to be entered disposing of the subject-matter of the controversy, which judgment when entered shall have the same force and effect as judgment entered upon an award.

SEC. 5. For the purposes of this act the arbitrators herein provided for, or either



of them, shall have power to administer oaths and affirmations, sign subpoenas, require the attendance and testimony of witnesses, and the production of such books, papers, contracts, agreements, and documents material to a just determination of the matters under investigation as may be ordered by the court; and may invoke the aid of the United States courts to compel witnesses to attend and testify and to produce such books, papers, contracts, agreements and documents to the same extent and under the same conditions and penalties as is provided for in the act to regulate commerce, approved February fourth, eighteen hundred and eighty-seven, and the amendments thereto.

SEC. 6. Every agreement of arbitration under this act shall be acknowledged by the parties before a notary public or clerk of a district or circuit court of the United States, and when so acknowledged a copy of the same shall be transmitted to the chairman of the Interstate Commerce Commission, who shall file the same in the office of said commission.

Any agreement of arbitration which shall be entered into conforming to this act, except that it shall be executed by employees individually instead of by a labor organization as their representative, shall, when duly acknowledged as herein provided, be transmitted to the chairman of the Interstate Commerce Commission, who shall cause a notice in writing to be served upon the arbitrators, fixing a time and place for a meeting of said board, which shall be within fifteen days from the execution of said agreement of arbitration: *Provided, however,* That the said chairman of the Interstate Commerce Commission shall decline to call a meeting of arbitrators under such agreement unless it be shown to his satisfaction that the employees signing the submission represent or include a majority of all employees in the service of the same employer and of the same grade and class, and that an award pursuant to said submission can justly be regarded as binding upon all such employees.

SEC. 7. During the pendency of arbitration under this act it shall not be lawful for the employer, party to such arbitration, to discharge the employees, parties thereto, except for inefficiency, violation of law, or neglect of duty; nor for the organization representing such employees to order, nor for the employees to unite in, aid, or abet, strikes against said employer; nor, during a period of three months after an award under such an arbitration, for such employer to discharge any such employees, except for the causes aforesaid, without giving thirty days' written notice of an intent so to discharge; nor for any of such employees, during a like period, to quit the service of said employer without just cause, without giving to said employer thirty days' written notice of an intent so to do; nor for such organization representing such employees to order, counsel, or advise otherwise. Any violation of this section shall subject the offending party to liability for damages: *Provided,* That nothing herein contained shall be construed to prevent any employer, party to such arbitration, from reducing the number of its or his employees whenever in its or his judgment business necessities require such reduction.

SEC. 8. In every incorporation under the provisions of chapter five hundred and sixty-seven of the United States Statutes of eighteen hundred and eighty-five and eighteen hundred and eighty-six it must be provided in the articles of incorporation and in the constitution, rules, and by-laws that a member shall cease to be such by participating in or by instigating force or violence against persons or property during strikes, lockouts, or boycotts, or by seeking to prevent others from working through violence, threats, or intimidations. Members of such incorporations shall not be personally liable for the acts, debts, or obligations of the corporations, nor shall such corporations be liable for the acts of members or others in violation of law; and such corporations may appear by designated representatives before the board created by this act, or in any suits or proceedings for or against such corporations or their members in any of the Federal courts.

SEC. 9. Whenever receivers appointed by Federal courts are in the possession and control of railroads, the employees upon such railroads shall have the right to be heard in such courts upon all questions affecting the terms and conditions of their employment, through the officers and representatives of their associations, whether incorporated or unincorporated, and no reduction of wages shall be made by such receivers without the authority of the court therefor upon notice to such employees, said notice to be not less than twenty days before the hearing upon the receivers' petition or application, and to be posted upon all customary bulletin boards along or upon the railway operated by such receiver or receivers.

SEC. 10. Any employer subject to the provisions of this act and any officer, agent, or receiver of such employer who shall require any employee, or any person seeking employment, as a condition of such employment, to enter into an agreement, either written or verbal, not to become or remain a member of any labor corporation, association, or organization; or shall threaten any employee with loss of employment, or shall unjustly discriminate against any employee because of his membership in



such a labor corporation, association, or organization; or who shall require any employee or any person seeking employment, as a condition of such employment, to enter into a contract whereby such employee or applicant for employment shall agree to contribute to any fund for charitable, social, or beneficial purposes; to release such employer from legal liability for any personal injury by reason of any benefit received from such fund beyond the proportion of the benefit arising from the employer's contribution to such fund; or who shall, after having discharged an employee, attempt or conspire to prevent such employee from obtaining employment, or who shall, after the quitting of an employee, attempt or conspire to prevent such employee from obtaining employment, is hereby declared to be guilty of a misdemeanor, and, upon conviction thereof in any court of the United States of competent jurisdiction in the district in which such offense was committed, shall be punished for each offense by a fine of not less than one hundred dollars and not more than one thousand dollars.

SEC. 11. Each member of said board of arbitration shall receive a compensation of ten dollars per day for the time he is actually employed, and his traveling and other necessary expenses; and a sum of money sufficient to pay the same, together with the traveling and other necessary and proper expenses of any conciliation or arbitration had hereunder, not to exceed ten thousand dollars in any one year, to be approved by the chairman of the Interstate Commerce Commission and audited by the proper accounting officers of the Treasury, is hereby appropriated for the fiscal years ending June thirtieth, eighteen hundred and ninety-eight, and June thirtieth, eighteen hundred and ninety-nine, out of any money in the Treasury not otherwise appropriated.

SEC. 12. The act to create boards of arbitration or commission for settling controversies and differences between railroad corporations and other common carriers engaged in interstate or territorial transportation of property or persons and their employees, approved October first, eighteen hundred and eighty-eight, is hereby repealed.

Approved, June 1, 1898.

#### CHAPTER 541.—*Wages preferred in payments by trustees of bankrupt estates.*

SECTION 64. DEBTS WHICH HAVE PRIORITY.—a The court shall order the trustee to pay all taxes legally due and owing by the bankrupt to the United States, State, county, district, or municipality in advance of the payment of dividends to creditors, \* \* \*.

b The debts to have priority, except as herein provided, and to be paid in full out of bankrupt estates, and the order of payment shall be (1) the actual and necessary cost of preserving the estate subsequent to filing the petition; (2) the filing fees paid by creditors in involuntary cases; (3) the cost of administration, including the fees and mileage payable to witnesses as now or hereafter provided by the laws of the United States, and one reasonable attorney's fee, for the professional services actually rendered, irrespective of the number of attorneys employed, to the petitioning creditors in involuntary cases, to the bankrupt in involuntary cases while performing the duties herein prescribed, and to the bankrupt in voluntary cases, as the court may allow; (4) wages due to workmen, clerks, or servants which have been earned within three months before the date of the commencement of proceedings, not to exceed three hundred dollars to each claimant; and (5) debts owing to any person who by the laws of the States or the United States is entitled to priority.

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Approved, July 1, 1898.

#### CHAPTER 546.—*Department of Labor—Bulletins to publish official statistics of cities.*

(Page 648.)

SECTION 1. \* \* \* . The Commissioner of Labor is authorized to compile and publish annually, as a part of the Bulletin of the Department of Labor, an abstract of the main features of the official statistics of the cities of the United States having over thirty thousand population. \* \* \* .

Approved, July 1, 1898.



JOINT RESOLUTION NO. 55.—*Annexation of the Hawaiian Islands—Chinese immigration prohibited.*

SECTION 1. \* \* \* . There shall be no further immigration of Chinese into the Hawaiian Islands, except upon such conditions as are now or may hereafter be allowed by the laws of the United States; and no Chinese, by reason of anything herein contained, shall be allowed to enter the United States from the Hawaiian Islands. \* \* \* .

Approved, July 7, 1898.



## RECENT GOVERNMENT CONTRACTS.

[The Secretaries of the Treasury, War, and Navy Departments have consented to furnish statements of all contracts for constructions and repairs entered into by them. These, as received, will appear from time to time in the Bulletin.]

The following contracts have been made by the office of the Supervising Architect of the Treasury:

POTTSVILLE, PA.—July 16, 1898. Contract with Prescott, Buckley & Callanan, Albany, N. Y., for construction (except heating apparatus) of post-office, \$32,440. Work to be completed within eight months.

AKRON, OHIO—July 21, 1898. Contract with J. W. Myers & Co., Ashland, Ohio, for construction (except heating apparatus and electric-wire conduits) of post-office, \$43,819.44. Work to be completed within nine months.

WASHINGTON, D. C.—August 13, 1898. Contract with Eaton & Prince Company, Chicago, Ill., for five hydraulic passenger and freight elevators, three hydraulic mail lifts, one electric passenger elevator, and two electric freight lifts for city post-office building, \$45,000. Work to be completed within six months.

ELLIS ISLAND, N. Y.—August 15, 1898. Contract with R. H. Hood Co., New York, N. Y., for construction of main buildings for immigrant station, \$419,298. Work to be completed within twelve months.

MILWAUKEE, WIS.—August 15, 1898. Contract with Crane Elevator Company, Chicago, Ill., for elevators for post-office, court-house, and custom-house, \$10,500. Work to be completed within ninety days.